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DEPARTMENT OF COMMERCE

Bureau of Industry and Security

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Publication of a Report on the Effect of Imports of Steel on the National Security: An Investigation Conducted Under Section 232 of the Trade Expansion Act of 1962, as Amended

AGENCY: Bureau of Industry and Security, Commerce.

ACTION: Publication of a report.

SUMMARY: The Bureau of Industry and Security (BIS) in this notice is publishing a report that summarizes the findings of an investigation conducted by the U.S. Department of Commerce (the “Department”) pursuant to Section 232 of the Trade Expansion Act of 1962, as amended (“Section 232”), into the effect of imports of steel mill products (“steel”) on the national security of the United States. This report was completed on January 11, 2018 and posted on the BIS website on February 16, 2018. BIS has not published the appendices to the report in this notification of report findings, but they are available online at the BIS website, along with the rest of the report (*see* the ADDRESSES section).

DATES: The report was completed on January 11, 2018. The report was posted on the BIS website on February 16, 2018.

ADDRESSES: The full report, including the appendices to the report, are available online at <https://www.commerce.gov/news/press-releases/2018/02/secretary-ross-releases-steel-and-aluminum-232-reports-coordination>.

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SUPPLEMENTARY INFORMATION:

THE EFFECT OF IMPORTS OF STEEL ON THE NATIONAL SECURITY

**AN INVESTIGATION CONDUCTED UNDER SECTION 232
OF THE TRADE EXPANSION ACT OF 1962, AS AMENDED**

January 11, 2018

Prepared by U.S. Department of Commerce

Bureau of Industry and Security

Office of Technology Evaluation

THE EFFECT OF IMPORTS OF STEEL ON THE NATIONAL SECURITY

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ⁱ BIS has not published the appendices, but they are available online at <https://www.commerce.gov/news/press-releases/2018/02/secretary-ross-releases-steel-and-aluminum-232-reports-coordination>, along with the rest of the report.

I. EXECUTIVE SUMMARY

Overview

This report summarizes the findings of an investigation conducted by the U.S. Department of Commerce (the “Department”) pursuant to Section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862 (“Section 232”)), into the effect of imports of steel mill products (“steel”) on the national security of the United States.

In conducting this investigation, the Secretary of Commerce (the “Secretary”) noted the Department’s prior investigations under Section 232. This report incorporates the statutory analysis from the Department’s 2001 Report¹ with respect to applying the terms “national defense” and “national security” in a manner that is consistent with the statute and legislative intent.² As in the 2001 Report, the Secretary in this investigation determined that “national security” for purposes of Section 232 includes the “general security and welfare of certain industries, beyond those necessary to satisfy national defense requirements, which are critical to minimum operations of the economy and government.”³

As required under Section 232, the Secretary examined the effect of imports on national security requirements, including: domestic production needed for projected national defense requirements; the capacity of domestic industries to meet such requirements; existing and anticipated availabilities of the human resources, products, raw materials, and other supplies and services essential to the national defense; the requirements of growth of such industries and such supplies and services including the investment, exploration, and development necessary to assure such growth; and the importation of goods in terms of their

¹ Department of Commerce, Bureau of Export Administration “The Effect of Imports of Iron Ore and Semi-Finished Steel on the National Security- Oct/ 2001” (2001 Report).

² *Id.* at 5.

³ *Id.*

quantities, availabilities, character, and use as those affect such industries; and the capacity of the United States to meet national security requirements.

The Secretary also recognized the close relation of the economic welfare of the United States to its national security; the impact of foreign competition on the economic welfare of individual domestic industries; and any substantial unemployment, decrease in revenues of government, loss of skills, or any other serious effects resulting from the displacement of any domestic products by excessive imports, without excluding other factors, in determining whether a weakening of the U.S. economy by such imports may impair national security. In particular, this report assesses whether steel is being imported “in such quantities” and “under such circumstances” as to “threaten to impair the national security.”⁴

Findings

In conducting the investigation, the Secretary found:

A. Steel is Important to U.S. National Security

1. National security includes projected national defense requirements for the U.S. Department of Defense.
2. National security also encompasses U.S. critical infrastructure sectors including transportation systems, the electric power grid, water systems, and energy generation systems.
3. Domestic steel production is essential for national security applications. Statutory provisions illustrate that Congress believes domestic production capability is essential for defense requirements and critical infrastructure needs,

⁴ 19 U.S.C. 1862(b)(3)(A).

and ultimately to the national security of the United States.⁵ U.S. Government actions on steel across earlier Administrations further demonstrate domestic steel production is vital to national security.⁶

4. Domestic steel production depends on a healthy and competitive U.S. industry. The principal types of mills that produce steel are integrated mills with basic oxygen furnaces (BOFs); mini-mills using electric arc furnaces (EAFs); re-roller/converter; and metal coater facilities. Basic oxygen furnaces convert raw materials into steel, and remain critical for continued innovation in steel technology. Covered in this report are five categories of steel products that are used for national security applications: flat, long, semi-finished, pipe and tube, and stainless.
5. The Department found that demand for steel in critical industries has increased since the Department's last investigation in 2001. The 2001 Report determined that there was 33.68 million tons of finished steel consumed in critical industries per year in the United States based on 1997 data.⁷ The Department updated that analysis for this report using 2007 data (the latest available) and determined that domestic consumption in critical industries has increased significantly, with 54 million metric tons of steel now being consumed annually in critical industries.

⁵ See, e.g., 15 U.S.C. 271(a)(1)(The future well-being of the United States economy depends on a strong manufacturing base..."); 50 U.S.C. 4502(a)(“Congress finds that – (1) the security of the United States is dependent on the ability of the domestic industrial base to supply materials and services... (2)(C) to provide for the protection and restoration of domestic critical infrastructure operations under emergency conditions0...”; and American Recovery and Reinvestment Act, Pub. L. 111-5, sec. 1605, 123 Stat. 303 (Feb. 17, 2009) (providing that none of the funds appropriated or made available by the act may be used for the construction, alteration, maintenance, or repair of a public building or public work unless the iron, steel, and manufactured goods are produced in the United States).

⁶ See *infra*, section V(A)(3) and Appendix J.

⁷ 2001 Report at 14. The 2001 Report is not clear whether it used short tons or metric tons. If short tons were used then the metric ton equivalent is 30.56 million metric tons.

B. Imports in Such Quantities as are Presently Found Adversely Impact the Economic Welfare of the U.S. Steel Industry

1. The United States is the world's largest steel importer. In the first ten months of 2017 steel imports have increased at a double-digit rate over 2016, accounting for more than 30 percent of U.S. consumption. Notwithstanding numerous anti-dumping and countervailing duty orders, which are limited in scope, imports of most types of steel continue to increase.
2. Import penetration levels for flat, semi-finished, stainless, long, and pipe and tube products continue on an upward trend above 30 percent of domestic consumption.
3. Imports are nearly four times U.S. exports.
4. Imports are priced substantially lower than U.S. produced steel.
5. Excessive steel imports have adversely impacted the steel industry. Numerous U.S. steel mill closures, a substantial decline in employment, lost domestic sales and market share, and marginal annual net income for U.S.-based steel companies illustrate the decline of the U.S. steel industry.

C. Displacement of Domestic Steel by Excessive Quantities of Imports has the Serious Effect of Weakening our Internal Economy

1. As steel imports have increased, U.S. steel production capacity has been stagnant and production has decreased.
2. Since 2000, foreign competition and the displacement of domestic steel by excessive imports have resulted in the closure of six basic oxygen furnace facilities and the idling of four more (which is more than a 50 percent reduction in the number of such facilities), a 35 percent decrease in employment in the steel industry, and

caused the domestic steel industry as a whole to operate on average with negative net income since 2009.

3. The declining steel capacity utilization rate is not economically sustainable. Utilization rates of 80 percent or greater are necessary to sustain adequate profitability and continued capital investment, research and development, and workforce enhancement in the steel sector.

D. Global Excess Steel Capacity is a Circumstance that Contributes to the Weakening of the Domestic Economy

1. In the steel sector, free markets globally are adversely affected by substantial chronic global excess steel production led by China. The world's nominal crude steelmaking capacity reached about 2.4 billion metric tons in 2016, an increase of 127 percent compared to the capacity level in 2000, while steel demand grew at a much smaller rate. In 2016 there was a 737 million metric ton global gap between steelmaking capacity and steel crude demand, which means there is unlikely to be any market-driven reduction in steel exports to the United States in the near future.⁸
2. While U.S. steel production capacity has remained flat since 2001, other steel producing nations have increased their production capacity, with China alone able to produce as much steel as the rest of the world combined. This overhang of excess capacity means that U.S. steel producers, for the foreseeable future, will face increasing competition from imported steel as other countries export more steel to the United States to bolster their own economic objectives and offset loss of

⁸ Source: Global Forum report; <http://www.bmwi.de/Redaktion/EN/Downloads/global-forum-on-steel-excess-capacity-report.pdf>

markets to Chinese steel exports.

Conclusion

Based on these findings, the Secretary of Commerce concludes that the present quantities and circumstance of steel imports are “weakening our internal economy” and threaten to impair the national security as defined in Section 232. The Secretary considered the Department’s narrower investigation of iron ore and semi- finished steel imports in 2001, which recommended no action be taken, and finds that several important factors – the broader scope of the investigation, the level of global excess capacity, the level of imports, the reduction in basic oxygen furnace facilities since 2001, and the potential impact of further plant closures on capacity needed in a national emergency, support recommending action under Section 232. In light of this conclusion, the Secretary has determined that the only effective means of removing the threat of impairment is to reduce imports to a level that should, in combination with good management, enable U.S. steel mills to operate at 80 percent or more of their rated production capacity.

Recommendation

Prior significant actions to address steel imports using quotas and/or tariffs were taken under various statutory authorities by President George W. Bush, President William J. Clinton (three times), President George H. W. Bush, President Ronald W. Reagan (three times), President James E. Carter (twice), and President Richard M. Nixon, all at lower levels of import penetration than the present level, which is greater than 30 percent.

Due to the threat, as defined in Section 232, to national security from steel imports, the Secretary recommends that the President take immediate action by adjusting the level of these imports through quotas or tariffs. The quotas or tariffs imposed should be sufficient, even after

any exceptions (if granted), to enable U.S. steel producers to operate at an 80 percent or better average capacity utilization rate based on available capacity in 2017 (see Figure 1).

Figure 1. Import Levels and U.S. Steel Mill Capacity Utilization Rates*		
Steel Market Snapshot (millions of metric tons)	2011-2016 Average	2017 Annualized
Total Demand for Steel in U.S. (production + imports-exports)	105.5	107.3
U.S. Annual Capacity	114.4	113.3
U.S. Annual Production (liquid)	84.6	81.9
Capacity Utilization Rate (percentage)	74.0	72.3
Imports and Exports (millions of metric tons)		
Imports of Steel to U.S. (including semi-finished)	31.8	36.0
Exports of Steel from the U.S.	10.8	10.1
Percent Import Penetration	30.1	33.8
Production at Various Utilization Rates (millions of metric tons)		
Maximum Capacity	114.4	113.3
Production at 75% Capacity Utilization	85.8	85.0
Production at 80% Capacity Utilization	91.5	90.6
Production at 85% Capacity Utilization	97.2	96.3
Import Levels and Domestic Production Targets Based on 80% Capacity Utilization		
General Equilibrium (GTAP Model – Includes Reduction in Exports and Demand)		
Maximum Import Level (mmt)	22.7	
Estimated Import Penetration	22%	
Estimated Production (mmt)	90.6	
Alternative 1A: Quota Applied to 2017 Import Levels	63%	
Alternative 1B: Tariff Rate Applied to All Imports	24%	
*Numbers may differ slightly due to rounding.		
Sources: United States Department of Commerce, Bureau of the Census; American Iron and Steel Institute. Calculations based on industry and trade data.		

The Secretary recommends that the President impose a quota or tariff on all steel products covered in this investigation imported into the United States to remove the threatened impairment to national security.

Alternative 1 – Global Quota or Tariff

1A. Global Quota

Impose quotas on all imported steel products at a specified percent of the 2017 import level, applied on a country and steel product basis.

According to the Global Trade Analysis Project (GTAP) Model,⁹ produced by Purdue University, a 63 percent quota would be expected to reduce steel imports by about 37 percent (13.3 million metric tons) from 2017 levels. Based on imports from January to October, import levels for 2017 are projected to reach 36.0 million metric tons. This action would result in imports equaling about 22.7 million metric tons, which will enable an 80 percent capacity utilization rate at 2017 demand levels (including exports).

1B. Global Tariff

Apply a tariff rate on all imported steel products, in addition to any antidumping or countervailing duty collections applicable to any imported steel product.

According to the Global Trade Analysis Project (GTAP) Model, produced by Purdue University, a 24 percent tariff on all steel imports would be expected to reduce imports by 37 percent (i.e., a reduction of 13.3 million metric tons from 2017 levels of 36.0 million metric tons). This tariff rate would thus result in imports equaling about 22.7 million metric tons, which will enable an 80 percent capacity utilization rate at 2017 demand levels (including exports).

Alternative 2 – Tariffs on a Subset of Countries

Apply a tariff rate on all imported steel products from Brazil, South Korea, Russia, Turkey, India, Vietnam, China, Thailand, South Africa, Egypt, Malaysia and Costa Rica, in addition to any antidumping or countervailing duty collections applicable to any steel products from those countries. All other countries would be limited to 100 percent of their 2017 import

⁹ The standard GTAP Model is a static multiregional, multisector, computable general equilibrium model, with perfect competition and constant returns to scale. The model is based on optimizing behavior by economic agents. The standard GTAP closure allows all prices and wages in the economy to adjust so as to ensure supply equals demand in all markets including the labor market. The estimates in this report were made using the GTAP 10 model which has a 2014 base.

level.

According to the Global Trade Analysis Project (GTAP) Model, produced by Purdue University, a 53 percent tariff on all steel imports from this subset of countries would be expected to reduce imports by 13.3 million metric tons from 2017 import levels from the targeted countries. This action would enable an increase in domestic production to achieve an 80 percent capacity utilization rate at 2017 demand levels (including exports). The countries identified are projected to account for less than 4 percent of U.S. steel exports in 2017.

Exemptions

In selecting an alternative, the President could determine that specific countries should be exempted from the proposed 63 percent quota or 24 percent tariff by granting those specific countries 100 percent of their prior imports in 2017, based on an overriding economic or security interest of the United States. The Secretary recommends that any such determination should be made at the outset and a corresponding adjustment be made to the final quota or tariff imposed on the remaining countries. This would ensure that overall imports of steel to the United States remain at or below the level needed to enable the domestic steel industry to operate as a whole at an 80 percent or greater capacity utilization rate. The limitation to 100 percent of each exempted country's 2017 imports is necessary to prevent exempted countries from producing additional steel for export to the United States or encouraging other countries to seek to trans-ship steel to the United States through the exempted countries.

It is possible to provide exemptions from either the quota or tariff and still meet the necessary objective of increasing U.S. steel capacity utilization to a financially viable target of 80 percent. However, to do so would require a reduction in the quota or increase in the tariff applied to the remaining countries to offset the effect of the exempted import tonnage.

Exclusions

The Secretary recommends an appeal process by which affected U.S. parties could seek an exclusion from the tariff or quota imposed. The Secretary would grant exclusions based on a demonstrated: (1) lack of sufficient U.S. production capacity of comparable products; or (2) specific national security based considerations. This appeal process would include a public comment period on each exclusion request, and in general, would be completed within 90 days of a completed application being filed with the Secretary.

An exclusion may be granted for a period to be determined by the Secretary and may be terminated if the conditions that gave rise to the exclusion change. The U.S. Department of Commerce will lead the appeal process in coordination with the Department of Defense and other agencies as appropriate. Should exclusions be granted the Secretary would consider at the time whether the quota or tariff for the remaining products needs to be adjusted to increase U.S. steel capacity utilization to a financially viable target of 80 percent.

II. LEGAL FRAMEWORK

I. Section 232 Requirements

Section 232 provides the Secretary with the authority to conduct investigations to determine the effect on the national security of the United States of imports of any article. It authorizes the Secretary to conduct an investigation if requested by the head of any department or agency, upon application of an interested party, or upon his own motion. *See* 19 U.S.C. 1862(b)(1)(A).

Section 232 directs the Secretary to submit to the President a report with recommendations for “action or inaction under this section” and requires the Secretary to

advise the President if any article “is being imported into the United States in such quantities or under such circumstances as to threaten to impair the national security.” *See* 19 U.S.C. 1862(b)(3)(A).

Section 232(d) directs the Secretary and the President to, in light of the requirements of national security and without excluding other relevant factors, give consideration to the domestic production needed for projected national defense requirements and the capacity of the United States to meet national security requirements. *See* 19 U.S.C. 1862(d).

Section 232(d) also directs the Secretary and the President to “recognize the close relation of the economic welfare of the Nation to our national security, and...take into consideration the impact of foreign competition on the economic welfare of individual domestic industries” by examining whether any substantial unemployment, decrease in revenues of government, loss of skills or investment, or other serious effects resulting from the displacement of any domestic products by excessive imports, or other factors, result in a “weakening of our internal economy” that may impair the national security. *See* 19 U.S.C. 1862(d).

Once an investigation has been initiated, Section 232 mandates that the Secretary provide notice to the Secretary of Defense that such an investigation has been initiated. Section 232 also requires the Secretary to do the following:

- (1) “Consult with the Secretary of Defense regarding the methodological and policy questions raised in [the] investigation;”
- (2) “Seek information and advice from, and consult with, appropriate officers of the United States;” and
- (3) “If it is appropriate and after reasonable notice, hold public hearings or otherwise

afford interested parties an opportunity to present information and advice relevant to such investigation.”¹⁰ *See* 19 U.S.C. 1862(b)(2)(A)(i)-(iii).

As detailed in Parts III and V of this report, each of the legal requirements set forth above has been satisfied.

In conducting the investigation, Section 232 permits the Secretary to request that the Secretary of Defense provide an assessment of the defense requirements of the article that is the subject of the investigation. *See* 19 U.S.C. 1862(b)(2)(B).

Upon completion of a Section 232 investigation, the Secretary is required to submit a report to the President no later than 270 days after the date on which the investigation was initiated. *See* 19 U.S.C. 1862(b)(3)(A). The required report must:

- (1) Set forth “the findings of such investigation with respect to the effect of the importation of such article in such quantities or under such circumstances upon the national security;”
- (2) Set forth, “based on such findings, the recommendations of the Secretary for action or inaction under this section;” and
- (3) “If the Secretary finds that such article is being imported into the United States in such quantities or under such circumstances as to threaten to impair the national security . . . so advise the President.” *See* 19 U.S.C. 1862(b)(3)(A).

All unclassified and non-proprietary portions of the report submitted by the Secretary to the President must be published.

¹⁰ Department regulations (i) set forth additional authority and specific procedures for such input from interested parties, see 15 CFR 705.7 and 705.8, and (ii) provide that the Secretary may vary or dispense with those procedures “in emergency situations, or when in the judgment of the Department, national security interests require it.” *Id.*, § 705.9.

Within 90 days after receiving a report in which the Secretary finds that an article is being imported into the United States in such quantities or under such circumstances as to threaten to impair the national security, the President shall:

- (1) “Determine whether the President concurs with the finding of the Secretary;”
and
- (2) “If the President concurs, determine the nature and duration of the action that, in the judgment of the President, must be taken to adjust the imports of the article and its derivatives so that such imports will not threaten to impair the national security.” *See* 19 U.S.C. 1862(c)(1)(A).

II. Discussion

While Section 232 does not contain a definition of “national security”, both Section 232, and its implementing regulations at 15 CFR part 705, contain non-exclusive lists of factors that Commerce must consider in evaluating the effect of imports on the national security. Congress in Section 232 explicitly determined that “national security” includes, but is not limited to, “national defense” requirements. *See* 19 U.S.C. 1862(d). The Department in 2001 determined that “national defense” includes both defense of the United States directly and the “ability to project military capabilities globally.”¹¹

The Department also concluded in 2001 that “in addition to the satisfaction of national defense requirements, the term “national security” can be interpreted more broadly to include the general security and welfare of certain industries, beyond those necessary to satisfy national defense requirements that are critical to the minimum operations of the economy and

¹¹ Department of Commerce, Bureau of Export Administration; The Effect of Imports of Iron Ore and Semi-Finished Steel on the National Security; Oct. 2001 (“2001 Report”).

government.” The Department called these “critical industries.”¹² This report once again uses these reasonable interpretations of “national defense” and “national security.” However, this report uses the more recent 16 critical infrastructure sectors identified in Presidential Policy Directive 21¹³ instead of the 28 critical industry sectors used by the Bureau of Export Administration in the 2001 Report.¹⁴

Section 232 directs the Secretary to determine whether imports of any article are being made “in such quantities or under such circumstances” that those imports “threaten to impair the national security.” *See* 19 U.S.C. 1862(b)(3)(A). The statutory construction makes clear that either the quantities or the circumstances, standing alone, may be sufficient to support an affirmative finding. They may also be considered together, particularly where the circumstances act to prolong or magnify the impact of the quantities being imported.

The statute does not define a threshold for when “such quantities” of imports are sufficient to threaten to impair the national security, nor does it define the “circumstances” that might qualify.

Likewise, the statute does not require a finding that the quantities or circumstances are impairing the national security. Instead, the threshold question under Section 232 is whether those quantities or circumstances “threaten to impair the national security.” *See* 19 U.S.C. 1862(b)(3)(A). This formulation strongly suggests that Congress expected an affirmative finding under Section 232 would occur before there is actual impairment of the national security.¹⁵

¹² *Id.*

¹³ Presidential Policy Directive 21; Critical Infrastructure Security and Resilience; February 12, 2013 (“PPD-21”).

¹⁴ *See Op. Cit.* at 16.

¹⁵ The 2001 Report used the phrase “Fundamentally threaten to impair” when discussing how imports may threaten to impair national security. *See* 2001 Report at 7 and 37. Because the term “fundamentally” is not included in the statutory text and could be perceived as establishing a higher threshold, the Secretary expressly does not use the qualifier in this report. The statutory threshold in Section 232(b)(3)(A) is unambiguously “threaten to impair” and

Section 232(d) contains a considerable list of factors for the Secretary to consider in determining if imports “threaten to impair the national security”¹⁶ of the United States, and this list is mirrored in the implementing regulations. *See* 19 U.S.C. 1862(d) and 15 CFR 705.4. Congress was careful to note twice in Section 232(d) that the list they provided, while mandatory, is not exclusive.¹⁷ Congress’ illustrative list is focused on the ability of the United States to maintain the domestic capacity to provide the articles in question as needed to maintain the national security of the United States.¹⁸ Congress broke the list of factors into two equal parts using two separate sentences. The first sentence focuses directly on “national defense” requirements, thus making clear that “national defense” is a subset of the broader term “national security.” The second sentence focuses on the broader economy, and expressly directs that the Secretary and the President “shall recognize the close relation of the economic welfare of the Nation to our national security.”¹⁹ *See* 19 U.S.C. 1862(d).

Two of the factors listed in the second sentence of Section 232(d) are most relevant in this investigation. Both are directed at how “such quantities” of imports threaten to impair

the Secretary adopts that threshold without qualification. 19 U.S.C. 1862(b)(3)(A). The statute also uses the formulation “may impair” in Section 232(d). *Id.* at 1862(d).

¹⁶ 19 U.S.C. 1862(b)(3)(A).

¹⁷ *See* 19 U.S.C. 1862(d) (“the Secretary and the President shall, in light of the requirements of national security and without excluding other relevant factors...” and “serious effects resulting from the displacement of any domestic products by excessive imports shall be considered, without excluding other factors...”).

¹⁸ This reading is supported by Congressional findings in other statutes. *See, e.g.,* 15 U.S.C. 271(a)(1) (“The future well-being of the United States economy depends on a strong manufacturing base...”) and 50 U.S.C. 4502(a) (“Congress finds that – (1) the security of the United States is dependent on the ability of the domestic industrial base to supply materials and services... (2)(C) to provide for the protection and restoration of domestic critical infrastructure operations under emergency conditions... (3)... the national defense preparedness effort of the United States Government requires – (C) the development of domestic productive capacity to meet – (ii) unique technological requirements... (7) much of the industrial capacity that is relied upon by the United States Government for military production and other national defense purposes is deeply and directly influenced by – (A) the overall competitiveness of the industrial economy of the United States- and (B) the ability of industries in the United States, in general, to produce internationally competitive products and operate profitably while maintaining adequate research and development to preserve competitiveness with respect to military and civilian production- and (8) the inability of industries in the United States, especially smaller subcontractors and suppliers, to provide vital parts and components and other materials would impair the ability to sustain the Armed Forces of the United States in combat for longer than a short period.”).

¹⁹ *Accord* 50 U.S.C. 4502(a).

national security. *See* 19 U.S.C. 1862(b)(3)(A). In administering Section 232, the Secretary and the President are required to “take into consideration the impact of foreign competition on the economic welfare of individual domestic industries” and any “serious effects resulting from the displacement of any domestic products by excessive imports” in “determining whether such weakening of our internal economy may impair the national security.” *See* 19 U.S.C. 1862(d). Since the 2001 investigation, foreign competition and the displacement of domestic steel by excessive imports have resulted in the closure of six basic oxygen furnace facilities and the idling of four more (which is more than a 50 percent reduction in the number of such facilities), a 35 percent decrease in employment in the steel industry, and caused the domestic steel industry as a whole to operate on average with negative net income since 2009.

Another factor, not on the list, that the Secretary finds to be a relevant is the presence of massive excess capacity for producing steel. This excess capacity results in steel imports occurring “under such circumstances” that they threaten to impair the national security. *See* 19 U.S.C. 1862(b)(3)(A). The circumstance of excess global steel production capacity is a factor because, while U.S. production capacity has remained flat since 2001, other steel producing nations have increased their production capacity, with China alone able to produce as much as the rest of the world combined. This overhang of global excess capacity means that U.S. steel producers, for the foreseeable future, will continue to lose market share to imported steel as other countries export more steel to the United States to bolster their own economic objectives and offset loss of markets to Chinese steel exports.

It is these three factors – displacement of domestic steel by excessive imports and the consequent adverse impact on the economic welfare of the domestic steel industry, along with global excess capacity in steel – that the Secretary has concluded create a persistent threat of

further plant closures that could leave the United States unable in a national emergency to produce sufficient steel to meet national defense and critical industry needs. The Secretary finds this “weakening of our internal economy may impair the national security” as defined in Section 232. *See* 19 U.S.C. 1862(d).

The Secretary also considered whether the source of the imports affects the analysis under Section 232. In the 2001 Report, “the Department found that iron ore and semi-finished steel are imported from reliable foreign sources” and concluded that “even if the United States were dependent on imports of iron ore and semi- finished steel, imports would not threaten to impair national security.” 2001 Report at 27. However, because Congress in Section 232 chose to explicitly direct the Secretary to consider whether the “impact of foreign competition” and “the displacement of any domestic products by excessive imports” are “weakening our internal economy” but made no reference to an assessment of the sources of imports, it appears likely that Congress recognized adverse impacts might be caused by imports from allies or other reliable sources.²⁰ As a result, the fact that some or all of the imports causing the harm are from reliable sources does not compel a finding that those imports do not threaten to impair national security.²¹

After careful examination of the facts in this investigation, the Secretary has concluded that excessive imports of steel in the present circumstances do threaten to impair national

²⁰ When Congress adopted Section 232(d) in 1962 the immediately preceding section was Section 231, 19 U.S.C. 1861, which required the President, as soon as practicable, to suspend most-favored-nation tariff treatment for imports from communist countries. Given the bipolar nature of the world at the time, the absence of a distinction between communist and non-communist countries in Section 232 suggests that Congress expected Section 232 would be applied to imports from all countries—including allies and other “reliable” sources.

²¹ To the extent that the 2001 Report or other prior Department reports under Section 232 can be read to conclude that imports from reliable sources cannot impair the national security when the Secretary finds those imports are causing “substantial unemployment, decrease in revenues of government, loss of skills or investment, or other serious effects resulting from the displacement of any domestic products by excessive imports”, the Secretary expressly rejects such a reading.

security under Section 232. Several important factors – the broader scope of the investigation,²² the level of global excess capacity, the level of imports, the reduction in basic oxygen furnace facilities since 2001, and the potential impact of further plant closures on capacity needed in a national emergency – support a recommendation different from the one adopted in the 2001 Report.

III. INVESTIGATION PROCESS

A. Initiation of Investigation

On April 19, 2017, U.S. Secretary of Commerce Wilbur Ross initiated an investigation to determine the effect of imported steel on national security under Section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862).

Pursuant to Section 232(b)(1)(B), the Department notified the U.S. Department of Defense with an April 19, 2017 letter from Secretary Ross to Secretary James Mattis.²³

On April 20, 2017, President Donald Trump signed a Presidential Memorandum directing Secretary Ross to proceed expeditiously in conducting his investigation and submit a report on his findings to the President.²⁴

On April 21, 2017, the Department published in the Federal Register a notice about the

²² This investigation examines the import of a broad range of steel products – flat, long, pipe and tube, semi-finished, and stainless – whereas the 2001 Report addressed only semi-finished steel products and iron ore, which is not part of this investigation. As the 2001 Report noted, at the time semi-finished imports accounted for “a small percentage (approximately 7 percent) of total U.S. semi-finished steel consumption.” 2001 Report at 31. The 2001 Report also stated that “whether imports have harmed or threaten to harm U.S. producers writ large is beyond the scope of the Department’s inquiry, and need not be resolved here.” *Id.* at 37. This investigation is focused on the larger inquiry that the 2001 Report expressly did not reach.

²³ 19 U.S.C. 1862(b)(1)(B). See Appendix A. Section 232 Investigation Notification Letter to Secretary of Defense James Mattis (April 19, 2017) ; Department of Defense Response to Notification (May 8, 2017)

²⁴ See Appendix B: Presidential Memorandum for the Secretary of Commerce - Steel Imports and Threats to National Security (April 20, 2017)

initiation of this investigation to determine the effect of imports of steel on the national security. The notice also announced the opening of the public comment period as well as a public hearing to be held on May 24, 2017.²⁵

B. Public Hearing

The Department held a public hearing to elicit further information concerning this investigation in Washington, DC, on May 24, 2017. The Department heard testimony from 37 witnesses at the hearing. A full list of witnesses and copies of their testimony are included in Appendices E and F.

C. Public Comments

On April 21, 2017, the Department invited interested parties to submit written comments, opinions, data, information, or advice relevant to the criteria listed in § 705.4 of the National Security Industrial Base Regulations (15 CFR 705.4) as they affect the requirements of national security, including the following:

(a) Quantity of the articles subject to the investigation and other circumstances related to the importation of such articles; (b) Domestic production capacity needed for these articles to meet projected national defense requirements; (c) The capacity of domestic industries to meet projected national defense requirements; (d) Existing and anticipated availability of human resources, products, raw materials, production equipment, facilities, and other supplies and services essential to the national defense; (e) Growth requirements of domestic industries needed to meet national defense requirements and the supplies and services including the investment, exploration and development necessary to assure such growth; (f) The impact of foreign competition on the economic welfare of any domestic industry essential to our national

²⁵ See Appendices C and D for Federal Register Notice Federal Register, Vol. 82, No. 79, 19205-19207 and See Federal Register, Vol. 82, No. 98, 23529-23530.

security; (g) The displacement of any domestic products causing substantial unemployment, decrease in the revenues of government, loss of investment or specialized skills and productive capacity, or other serious effects; (h) Relevant factors that are causing or will cause a weakening of our national economy; and (i) Any other relevant factors. *See* Federal Register, Vol. 82, No. 79, 19205- 19207.

The public comment period ended on May 31, 2017. The Department received 201 written public comment submissions concerning this investigation. All public comments were carefully reviewed and factored into the investigation process. For a listing of all public comments, *see* Appendix G.

D. Interagency Consultation

In addition to the required notification provided by the April 19, 2017 letter from Secretary Ross to Secretary Mattis, Department staff carried out the consultations required under Section 232(b)(2).²⁶ Staff consulted with their counterparts in the Department of Defense regarding any methodological and policy questions that arose during the investigation. Discussions were held with the U.S. Army Materiel Command, the Defense Logistics Agency, the U.S. Navy/Naval Air Systems Command, and the Under Secretary of Defense for Acquisitions & Logistics, Manufacturing and Industrial Base Policy.

Discussions were also held with “appropriate officers of the United States,” including the Department of State, Department of the Treasury, Department of the Interior/U.S. Geological Survey, the Department of Homeland Security/U.S. Customs and Border Protection, the International Trade Commission, and the Office of the United States Trade Representative.²⁷

²⁶ 19 U.S.C. 1862(b)(2)

²⁷ *Id.*

IV. PRODUCT SCOPE OF THE INVESTIGATION^{28, 29}

For this report, the product scope covers steel mill products (“steel”) which are defined at the Harmonized System (“HS”) 6-digit level as: 720610 through 721650, 721699 through 730110, 730210, 730240 through 730290, and 730410 through 730690, including any subsequent revisions to these HS codes. The following discontinued HS codes have been included for purposes of reporting historical data (prior to 2007): 722520, 722693, 722694, 722910, 730410, 730421, 730610, 730620, and 730660.

These steel products are all produced by U.S. steel companies and support various applications across the defense, critical infrastructure, and commercial sectors. Generally, these products fall into one of the following five product categories (including but not limited to):

- (1) Carbon and Alloy Flat Product (Flat Products): Produced by rolling semi- finished steel through varying sets of rolls. Includes sheets, strips, and plates.

Flat products are covered under the following 6-digit HS codes: 720810, 720825, 720826, 720827, 720836, 720837, 720838, 720839, 720840, 720851, 720852, 720853, 720854, 720890, 720915, 720916, 720917, 720918, 720925, 720926, 720927, 720928, 720990, 721011, 721012, 721020, 721030, 721041, 721049, 721050, 721061, 721069, 721070, 721090, 721113, 721114, 721119, 721123, 721129, 721190, 721210, 721220, 721230, 721240, 721250, 721260, 722511, 722519, 722530,

²⁸ The scope includes steel products.

²⁹ Note that import data for steel products includes what are believed to be very small amounts of iron as well as steel, both of which are included in the HS codes covered in the scope.

722540, 722550, 722591, 722592, 722599, 722611, 722619, 722691,
722692, 722693, 722694, 722699

- (2) Carbon and Alloy Long Products (Long Products): Steel products that fall outside the flat products category. Includes bars, rails, rods, and beams.

Long products are covered under the following 6-digit HS codes: 721310, 721320, 721391, 721399, 721410, 721420, 721430, 721491, 721499, 721510, 721550, 721590, 721610, 721621, 721622, 721631, 721632, 721633, 721640, 721650, 721699, 721710, 721720, 721730, 721790, 722520, 722620, 722710, 722720, 722790, 722810, 722820, 722830, 722840, 722850, 722860, 722870, 722880, 722910, 722920, 722990, 730110, 730210, 730240, 730290

- (3) Carbon and Alloy Pipe and Tube Products (Pipe and Tube Products): Either seamless or welded pipe and tube products. Some of these products may include stainless as well as alloy other than stainless.

Pipe and Tube products are covered under the following 6-digit HS codes: 730410, 730419, 730421, 730423, 730429, 730431, 730439, 730451, 730459, 730490, 730511, 730512, 730519, 730520, 730531, 730539, 730590, 730610, 730619, 730620, 730629, 730630, 730650, 730660, 730661, 730669, 730690

- (4) Carbon and Alloy Semi-finished Products (Semi-finished Products): The initial, intermediate solid forms of molten steel, to be re-heated and further forged, rolled,

shaped, or otherwise worked into finished steel products. Includes blooms, billets, slabs, ingots, and steel castings.

Semi-finished products are covered under the following 6-digit HS codes: 720610, 720690, 720711, 720712, 720719, 720720, 722410, 722490

- (5) **Stainless Products:** Steel products, in flat-rolled, long, pipe and tube, and semi-finished forms, containing at minimum 10.5 percent chromium and, by weight, 1.2 percent or less of carbon, offering better corrosion resistance than other steel.

Stainless steel products are covered under the following 6-digit HS codes: 721810, 721891, 721899, 721911, 721912, 721913, 721914, 721921, 721922, 721923, 721924, 721931, 721932, 721933, 721934, 721935, 721990, 722011, 722012, 722020, 722090, 722100, 722211, 722219, 722220, 722230, 722240, 722300, 730411, 730422, 730424, 730441, 730449, 730611, 730621, 730640

V. FINDINGS

A. Steel is Important to U.S. National Security

As discussed in Part II, “national security” under Section 232 includes both

- (1) national defense, and (2) critical infrastructure needs.

1. Steel is Needed for National Defense Requirements

Steel articles are critical to the nation’s overall defense objectives.³⁰ The U.S. Department of Defense (DoD) has a large and ongoing need for a range of steel products that

³⁰ *Accord*, 2001 Report at 1, 12.

are used in fabricating weapons and related systems for the nation's defense.³¹ DoD requirements – which currently require about three percent of U.S. steel production – are met by steel companies that also support the requirements for critical infrastructure and commercial industries.

The free market system in the United States requires commercially viable steel producers to meet defense needs. No company could afford to construct and operate a modern steel mill solely to supply defense needs because those needs are too diverse. In order to supply those diverse national defense needs, U.S. steel mills must attract sufficient commercial (i.e., non-defense) business. The commercial revenue supports construction, operation, and maintenance of production capacity as well as the upgrades, research and development required to continue to supply defense needs in the future. *See* Appendix H for examples.

2. Steel is Required for U.S. Critical Infrastructure

Steel also is needed to satisfy requirements for “those industries that the U.S. Government has determined are critical to minimum operations of the economy and government.”³² In the 2001 Report the Department identified 28 “critical industries.”³³ The Critical Infrastructure Assurance Office that identified the “critical industries” is no longer in existence, so for this investigation the Department instead relied on the industries identified by the U.S. Government in the 2013 Presidential Policy Directive 21 (PPD-21).³⁴ The Secretary believes that the range of industries identified in PPD-21 is comparable to the range of critical industries analyzed in the 2001 Report.

³¹ AISI 2017 public policy agenda, available from <http://www.steel.org/~media/Files/AISI/Reports/AISI-2017-Public-Policy-Agenda/pdf?la=en>

³² 2001 Report at 14. See also, 2001 Report at 16, Table 2, for a listing of the 28 critical industries.

³³ *Id.*

³⁴ PPD-21 can be viewed at <https://obamawhitehouse.archives.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil>

Pursuant to PPD-21, there are 16 designated critical infrastructure sectors in the United States, many of which use high volumes of steel (*see* Appendix I).³⁵ The 16 sectors include chemical production, communications, dams, energy, food production, nuclear reactors, transportation systems, water, and waste water systems.

Increased quantities of steel will be needed for various critical infrastructure applications in the coming years. The American Society of Civil Engineers estimates that the United States needs to invest \$4.5 trillion in infrastructure by 2025, and a substantial portion of these projects require steel content.³⁶

3. Domestic Steel Production is Essential for National Security

Applications

Domestic steel production is essential for national security. Congress, in Section 232(d), directed the Secretary of Commerce and the President to consider domestic production and the economic welfare of the United States in determining whether imports threaten to impair national security.

In the case of steel, the history of U.S. Government actions to ensure the continued viability of the U.S. steel industry demonstrates that, across decades and Administrations, there has been consensus that domestic steel production is vital to national security.

Prior significant actions under various statutory authorities to address steel imports using quotas or tariffs were taken by President George W. Bush, President William J. Clinton (three times), President George H. W. Bush, President Ronald W. Reagan (three times), President James E. Carter (twice), and President Richard M. Nixon, all at lower levels of import

³⁵ Department of Homeland Security, “Critical Infrastructure Sectors,” <https://www.dhs.gov/critical-infrastructure-sectors#>

³⁶ 2017 Infrastructure Report Card, American Society of Civil Engineers, <https://www.infrastructurereportcard.org/wp-content/uploads/2016/10/2017-Infrastructure-Report-Card/pdf>

penetration than at present. In the 1970s, action was taken to limit import penetration to approximately 19 percent. In the 1980s, import penetration had reached 21 percent and the U.S. Government enacted correcting measures. In the 1990s and 2000s import penetration again reached up to 23 percent, which prompted the U.S. Government to take additional actions.³⁷ In 2016, import penetration averaged 30 percent and for the first nine months of 2017 imports have consistently averaged over 30 percent of U.S. domestic demand.

4. Domestic Steel Production Depends on a Healthy and Competitive U.S. Industry

U.S. steel producers would be unable to survive purely on defense or critical infrastructure steel needs. In the steel industry, it is commercial and industrial customer sales that generate the relatively steady production needed for manufacturing efficiency, and the revenue volume needed to sustain the business. Sales for critical infrastructure and defense applications are often less predictable, cyclical, and limited in volume.

Steel manufacturers operating in the United States, however, have seen their commercial and industrial business steadily eroded by a growing influx of lower- priced imported product from countries where steel manufacturing often is subsidized, directly or indirectly. The Department of Commerce currently has 164 antidumping and countervailing duty determinations in effect, and has 20 additional cases under investigation, to address specific cases. *See* Appendix K.

5. Steel Consumed in Critical Industries

In this investigation, the issue before the Department is whether steel imports “threaten to impair” national security. *See* 19 U.S.C. 1862. As discussed in Part II, the Secretary has

³⁷ See Appendix J for additional detail on U.S. Government actions on steel in the past.

determined that in the present case the relevant factors are the “serious effects resulting from the displacement of ... domestic [steel] products by excessive imports” and the “impact of foreign competition on the economic welfare of individual domestic [steel] industries” that, when combined with the circumstance of massive global excess capacity, causes a “weakening of our internal economy” that “may impair the national security.”³⁸

In a free market system, the ability of the domestic steel industry to continue meeting national security needs depends on the continued capability of the U.S. steel industry to compete fairly in the commercial marketplace and maintain a financially viable domestic manufacturing capability. This includes the need to have an adequately skilled workforce for manufacturing as well as to conduct research and development for future products.³⁹ A continued loss of viable commercial production capabilities and related skilled workforce will jeopardize the U.S. steel industry’s ability to meet the full spectrum of national security requirements.

The Department in 2001 determined that the “critical industries” sector, which is analogous to the more robust critical infrastructure sectors identified pursuant to PPD-21, would require “no more than 33.68 million tons of finished steel per year,”⁴⁰ based on 30.88 percent of domestic consumption being used in industries related to critical infrastructure. The Department has now updated the “critical industries” calculation from the 2001 Report⁴¹ using Census Bureau steel usage figures from 2007, which are the latest available. *See Appendix I*

³⁸ 19 U.S.C. 1862(d).

³⁹ See 50 U.S.C. 4502(a)(“Congress finds that – ... (7) much of the industrial capacity that is relied upon by the United States Government for military production and other national defense purposes is deeply and directly influenced by – (A) the overall competitiveness of the industrial economy of the United States- and the ability of industries in the United States, in general, to produce internationally competitive products and operate profitably while maintaining adequate research and development to preserve competitiveness with respect to military and civilian production...”).

⁴⁰ 2001 Report at 14. The report is not clear whether it is referring to short tons or metric tons. While not crucial to the analysis, if the figure is in short tons then the equivalent amount in metric tons would be 30.56 million metric tons.

⁴¹ 2001 Report at 16 (Table 2).

for more detailed information on steel needs for critical infrastructure.

The updated analysis in Appendix I shows that 49.1 percent of domestic steel consumption in 2007 was used in critical industries. Domestic production in 2007 was 110 million metric tons. The 49.1 percent of domestic consumption used in critical industries equals 54 million metric tons, compared to 30.56 million metric tons (or 33.68 million short tons) used in critical industries in 1997. Thus in 10 years the demand for steel in critical industries increased by 63 percent.

B. Imports in Such Quantities as are Presently Found Adversely Impact the Economic Welfare of the U.S. Steel Industry

In the steel sector, foreign competition is characterized by substantial and sustained global overcapacity and production in excess of foreign domestic demand.

1. Imports of Steel Products Continue to Increase

The United States is the world's largest steel importer. The top 20 sources of U.S. imports of steel products accounted for approximately 91 percent of the roughly 36 million metric tons of steel the United States is expected to import in 2017 (*see* Figure 2).

Total U.S. imports rose from 25.9 million metric tons in 2011, peaking at 40.2 million metric tons in 2014 at the height of the shale hydrocarbon drilling boom. For 2017 (first ten months) imports are increasing at a double-digit rate over 2016, pushing finished steel imports consistently over 30 percent of U.S. consumption.

Figure 2. Top U.S. Imports of All Steel Products				
Imports for Domestic Consumption, Quantity In Metric Tons, Ranked By 2017				
2017 Rank	Country	2011	2017 (Annualized)	% Change 2011 2017 (Annualized)
	World	25,994,621	35,927,141	38%
1	Canada	5,539,448	5,800,008	5%
2	Brazil	2,820,927	4,678,530	66%
3	South Korea	2,572,981	3,653,934	42%
4	Mexico	2,625,104	3,249,292	24%
5	Russia	1,269,717	3,123,691	146%
6	Turkey	665,303	2,249,456	238%
7	Japan	1,824,393	1,781,147	-2%
8	Germany	978,230	1,370,669	40%
9	Taiwan	588,036	1,251,767	113%
10	India	735,802	854,026	16%
11	China	1,132,292	784,393	-31%
12	Vietnam	120,134	727,643	506%
13	Netherlands	517,773	589,930	14%
14	Italy	276,809	515,459	86%
15	Thailand	72,183	417,389	478%
16	Spain	195,907	403,091	106%
17	United Kingdom	400,244	354,389	-11%
18	South Africa	123,001	350,425	185%
19	Sweden	267,685	299,170	12%
20	United Arab Emirates	63,316	290,221	358%
	Top 20 Total	22,789,285	32,744,630	44%
Source: United States Department of Commerce, Bureau of the Census, Foreign Trade Division, IHS Global Trade Atlas Database: Revised Statistics for 2011 - 2017. 2017 data is annualized based on YTD 2017 through October.				

As shown in Appendix K, antidumping and countervailing duty actions can address specific instances of unfairly traded steel products. However, given the large number of countries from which the United States imports steel and the myriad of different products involved, it could take years to identify and investigate every instance of unfairly traded steel, or attempts to transship or evade remedial duties.

Moreover, U.S. industry has already spent hundreds of millions of dollars in recent years on AD/CVD cases, with seemingly no end in sight to their outlays. Smaller steel

manufacturers are financially unable to afford these type of cases, or are hesitant to file cases in light of possible market entry retaliation in foreign markets for finished steel products.⁴²

2. High Import Penetration

In contrast to the situation in the 2001 Report, where imports of semi-finished steel represented approximately 7 percent of domestic consumption,⁴³ imports of finished steel products (i.e. not including semi-finished steel) currently represent over 25 percent of U.S. consumption (*see* Figure 3).⁴⁴ If imports of semi-finished products are included, the import penetration level has been above 30 percent for the first ten months of 2017. Import penetration of steel pipe and tube was 74 percent in 2016 and further increased in 2017.



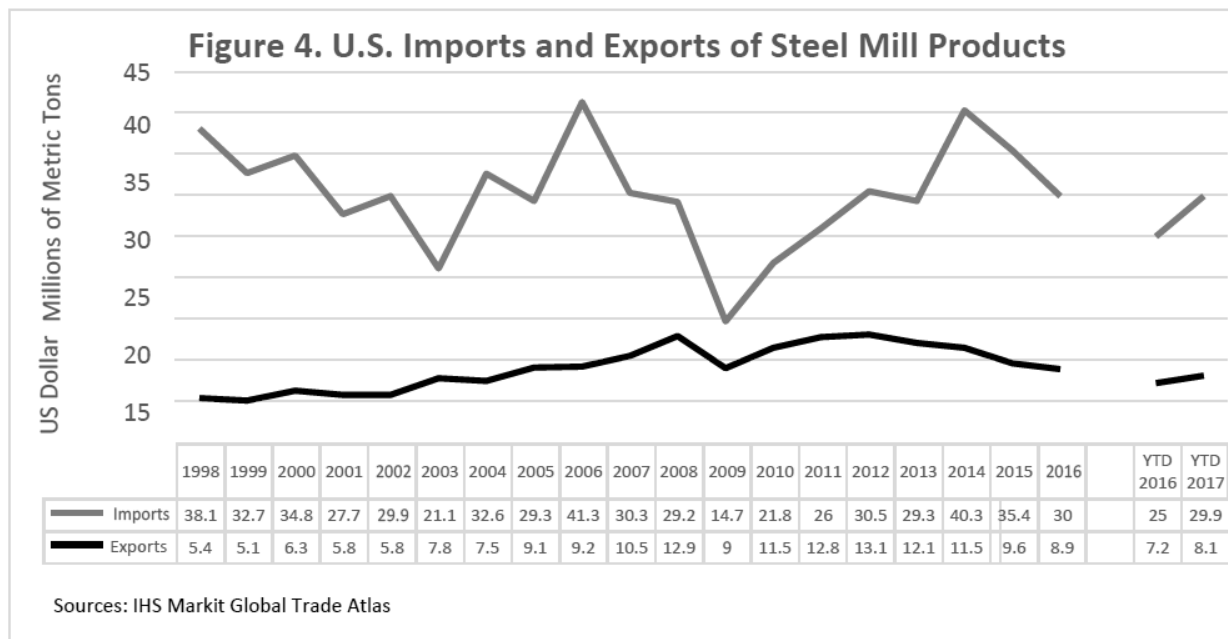
3. High Import to Export Ratio

⁴² Congress has specifically expressed concern about the need to maintain small suppliers and the potential adverse impact on military readiness caused by the loss of small suppliers. See 50 U.S.C. 4502(a)(8).

⁴³ 2001 Report at 31.

⁴⁴ AISI's statistical yearbook reports that about 8 percent of U.S. shipments are made of imported substrate.

U.S. imports of steel products, which displace demand for domestic steel and lower production at U.S. plants, reached nearly four times the level of exports of U.S. steel products in 2016 (see Figure 4). The expansion of steel production capacity outside of the United States in the last decade (Asia, the Middle East, and South America), much of it subsidized by national governments, continues to depress world steel prices while making it increasingly difficult for U.S. companies to export their steel products. While U.S. steel producers saw a mild increase in steel exports from 2005 to 2013, more recently sales to foreign customers have been declining. Exports fell to nine million metric tons in 2016 from a 20-year high of 12 million metric tons annually from 2011 to 2013. Most U.S. steel exports are auto industry related and are sent to Canada (50 percent by weight in 2016) and Mexico (39 percent by weight in 2016). Flat products represent the majority of these exports – 57 percent of U.S. steel exports for Canada and 64 percent of steel exports for Mexico.

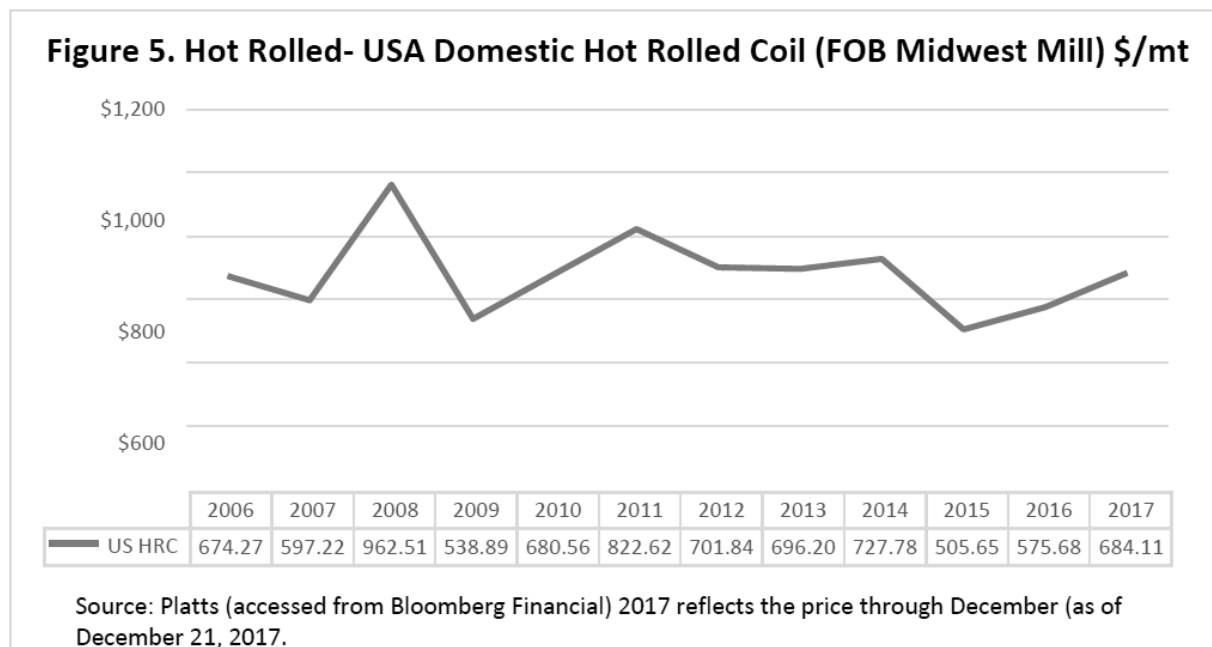


The same is true in the line pipe sector. The United States exports a minimal amount of line pipe. Exports of line pipe reached a recent peak of 525 thousand metric tons in 2013 before

declining significantly. Exports totaled just 60 thousand metric tons in 2016, a decrease of 89 percent from 2013, and were less than one-twentieth of the size of line pipe imports. Canada represents the largest destination for U.S. line pipe exports, with 39 percent of 2016 exports going to Canada, followed by Mexico with 13 percent.

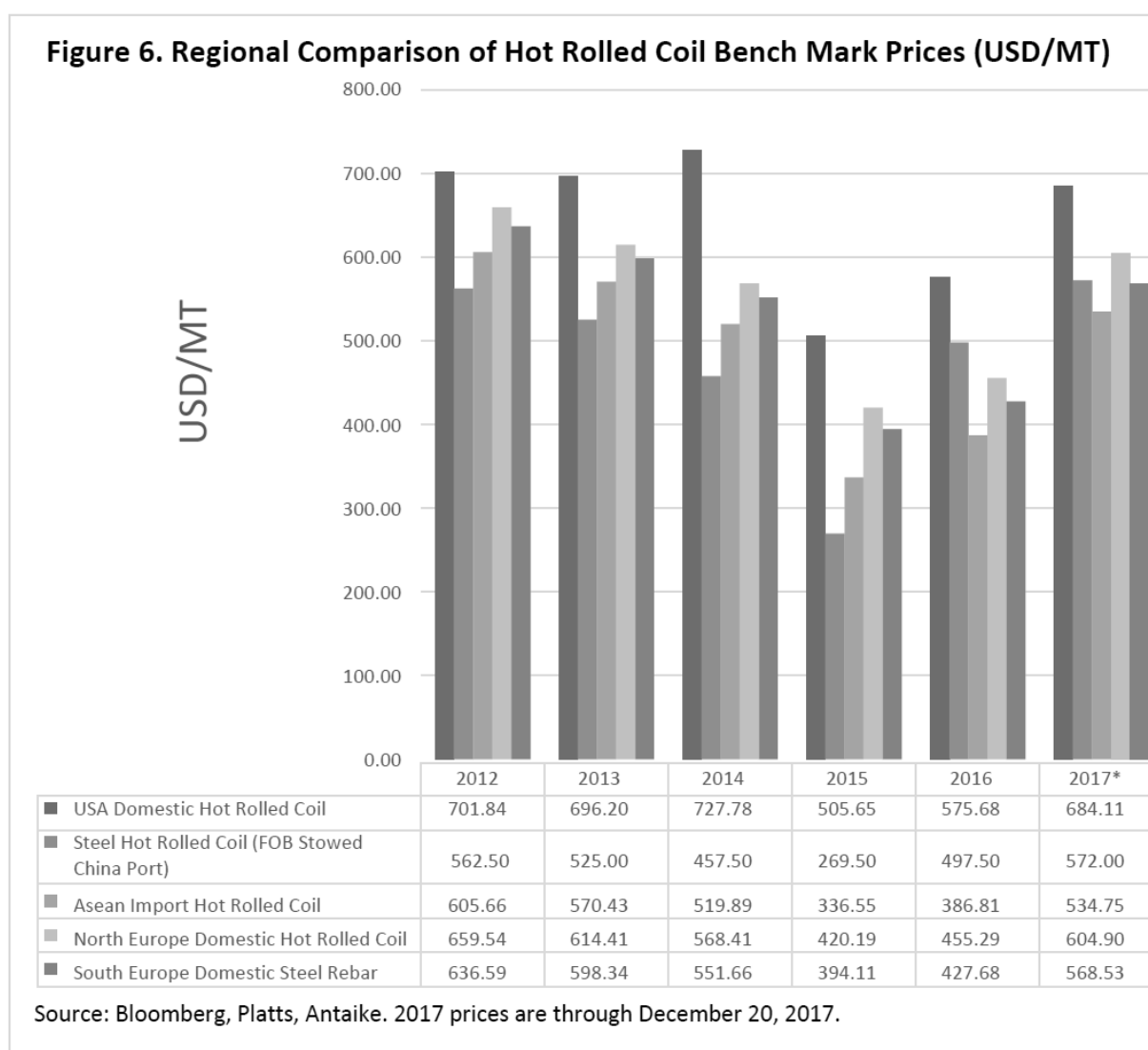
4. Steel Prices

Hot-rolled coil prices are a benchmark price indicator for a common type of steel (*see* Figure 5). Hot rolled coil is considered a “benchmark” because it is a commodity product with a fairly common definition globally.



U.S. prices for hot-rolled steel coil have been higher than in other countries since 2010. U.S. domestic benchmark prices for this product class dipped especially low in 2015 at \$505.65/metric ton before recovering in 2016 to \$575.68/metric ton. In 2016, the price of freight-on-board stowed China port steel hot-rolled coil was 14 percent lower than U.S. domestic hot-rolled coil. In the case of ASEAN nations, import prices for hot-rolled coil were 33 percent lower and North Europe domestic hot-rolled coil was 21 percent lower. Each region saw a price

decline in 2015 (*see* Figure 6). U.S. prices remained higher than other regions' prices for this commodity level product throughout the period. Such higher prices are attributable to higher taxes, healthcare, environmental standards, and other regulatory expenses. Moreover, lower prices in steel producing regions backed by state-subsidized enterprises adds pressure on U.S. competitors to export their steel products to the U.S. Again in 2016, all categories of steel in all countries continued to experience pressure to lower prices compared to what could be charged in 2012.



In 2015, steel prices fell globally. As the OECD noted, the combined effect of weakening

global steel demand, including in the United States, growing exports in many economies, and decreases in steelmaking costs led to a very sharp decline in steel prices in 2015. Notwithstanding these effects, prices for steel in the U.S. remained substantially higher than in any other area. However, relative to prices between 2010 and 2013, prices are still relatively depressed.

Global excess steel production weakens the pricing power of U.S. steel producers. U.S. steel producers' costs are higher than the costs for producers in other regions due to higher taxes, healthcare, environmental, and other regulatory expenses. Higher U.S. steel prices incentivize importing lower-cost foreign steel. Moreover, excess production and lower prices in regions proximate to state subsidized enterprises displace purchases from market based steel exporters and add pressure on those market based suppliers to export to the U.S. The effect of global excess steel production on U.S. steel prices and import levels is discussed in greater detail in Appendix L.

5. Steel Mill Closures

U.S. steel mill closures continue eroding overall U.S. steel mill capacity and employment. Many U.S. steel mills have been driven out of business due to declining steel prices, global overcapacity, and unfairly traded steel. Since 2000, the United States has lost over 25 percent of its basic oxygen furnace facilities with the closure of six facilities: RG Steel in Sparrows Point, Maryland; RG Steel in Steubenville, Ohio; RG Steel in Warren, Ohio; ArcelorMittal in East Chicago, Indiana; ArcelorMittal in Weirton, West Virginia; and U.S. Steel in Fairfield, Alabama.

In addition, four electric arc furnace steel facilities have closed: Evraz in Claymont, Delaware; ArcelorMittal in Georgetown, South Carolina; Gerdau in Sand Springs, Oklahoma; and Republic Steel in Lorain, Ohio. Most recently, ArcelorMittal has announced the closure of

its plate rolling mill in Conshohocken, Pennsylvania, because of sagging commercial sales attributed to surging imports of low-cost steel product and flat defense demand.⁴⁵

The closures of these facilities have had a significant impact on the U.S. industrial workforce and local economies. RG Steel suffered three closures: Sparrows Point, Maryland; Steubenville, Ohio; and Warren, Ohio. After filing for bankruptcy in 2012, more than 2,000 employees were displaced in Maryland alone and another 2,000 in the Midwest. The company cited weak demand in the steel industry as well as lack of financing as key contributors to the closure.⁴⁶

Closures of smaller steel mills have had equally devastating impacts on employment. Gerdau Sand Springs in Oklahoma lost 300 employees after closing in 2009 because of a long-term drop in demand for steel.⁴⁷ Sand Springs was the last remaining steel plant in Oklahoma and had been in production since the 1920s.

In 2013, at least 345 employees were laid off in response to the closure of the Claymont steel mill in Delaware. The Governor of Delaware, Jack Markell, attributed the financial difficulties of the facility to “subdued market demand and the high volume of imports.”⁴⁸

Similar difficulties were cited by the ArcelorMittal’s Georgetown, South Carolina facility and U.S. Steel’s location in Fairfield, Alabama, both of which closed in 2015. Layoffs for these two corporations totaled 226 and more than 1,100 employees, respectively. Both companies attributed the layoffs to financial losses and ultimately, to facility closures due to

⁴⁵ Cowden, M. “Arcelor Mittal to Shut PA Plate Mill,” American Metal market, September 18, 2017.

⁴⁶ Business Journal, “Unforeseen Conditions Closes Warren Steel Holdings,” January 12, 2016, <http://businessjournaldaily.com/utilities-cut-to-warren-steel-holdings/>; Baltimore Brew, “Six reasons why the Sparrows Point steel mill collapsed,” May 25, 2012, <https://baltimorebrew.com/2012/05/25/six-reasons-why-the-sparrows-point-steel-mill-collapsed/>.

⁴⁷ News on 6, “Sand Springs Steel Plant May Close,” June 9, 2009, <http://www.newson6.com/story/10500785/sand-springs-steel-plant-may-close>.

⁴⁸ Business Insider, “Shutdown of Russian Steel Mill in Delaware Could Send a Message About US Trade,” October 17, 2013, <http://www.businessinsider.com/evraz-closes-claymont-steel-2013-10>.

the rise in competition from inexpensive imports.⁴⁹

Even temporary idling of steel plants threatens the U.S. steel industry as there are significant financial costs with re-opening a steel mill. Multiple U.S. facilities remain idled: there are four idled basic oxygen furnace facilities, two each in Kentucky and Illinois, representing almost one third of the remaining basic oxygen furnace facilities in United States.⁵⁰ In addition, there are idled pipe and tube mills in Texas, Ohio, and Alabama. Once production is halted at these facilities it is not always possible to bring back the highly skilled workforce needed to operate them. When steel mill restarts do occur, additional costs are often incurred for specialized worker training and production ramp-up.

In addition, when a steel mill closes at a given location, the workers find other occupations, move to other steel mills, or remain indefinitely unemployed. After a significant period of unemployment, much of the specialized skill required by steel mill workers is forgotten. Furthermore, it is typically not easy to find and recruit displaced workers who may live hundreds or thousands of miles away.

6. Declining Employment Trend Since 1998

U.S. steel industry employment has declined 35 percent (216,400 in 1998 to 139,800 in January 2016 - December 2016), including 14,100 lost jobs between 2015 and 2016. While employment numbers increased slightly in certain years, the trend is dramatically downward (*see* Figure 7). Layoffs defer formal plant closings but are an indication of financial distress. Layoffs in the last two years have been particularly acute in steel producers with pipe and tubular facilities. In addition to layoffs, there are permanent closures and bankruptcies in the

⁴⁹ AL.com, “U.S. Steel lays off 200 more workers in Fairfield,” March 18, 2016, http://www.al.com/business/index/ssf/2016/03/us_steel_lays_off_200_more_wor/html.

⁵⁰ See Figure 13.

industry.⁵¹

The loss of skilled workers is especially detrimental to the long-term health and competitiveness of the industry. The unstable and declining employment outlook for the industry also dissuades younger workers from wanting to participate in the future U.S. steel industry. The inability to rapidly add skilled workers to the industry negatively affects current manufacturing capabilities. This is especially problematic in the event of a major production surge or mobilization.



7. Trade Actions – Antidumping and Countervailing Duties

The number of U.S. antidumping and countervailing duty measures in effect illustrates the scope of the problem confronting the U.S. steel industry. In 1998, at the height of that period's steel crisis, there were just over 100 antidumping and countervailing duty cases against finished steel products.⁵² Today there are 164 antidumping and countervailing duty orders in effect for

⁵¹ See *infra*, section V(C)(1).

⁵² Global Steel Trade. Structural Problems and Future Solutions; Department of Commerce; July, 2000.

steel, with another 20 steel investigations currently ongoing and another waiting to take effect through publication in the Federal Register (*see* Appendix K for a full listing of Steel Antidumping and Countervailing Duty Orders in Effect). This represents a 60 percent increase in cases since the last time the Department investigated steel in 2001.

8. Loss of Domestic Opportunities to Bidders Using Imported Steel

Despite efforts to level the playing field through AD/CVD orders, there are numerous examples of U.S. steel producers being unable to fairly compete with foreign suppliers, including the lack of ability to bid on some critical U.S. infrastructure projects. Due to unfair competition, particularly from foreign state-owned enterprises, U.S. steel producers have lost out on U.S. business opportunities. Some examples include Chinese companies providing steel for the eastern span of the San Francisco-Oakland Bay Bridge as well as the Alexander Hamilton Bridge over the Harlem River in New York.⁵³

The Alliance for American Manufacturing's statement before the Congressional Steel Caucus (March 2017) identified three other recent infrastructure projects in New York that have used or will use heavily subsidized or possibly dumped foreign steel: the Verrazano-Narrows Bridge, LaGuardia Airport, and the Holland Tunnel. Two major U.S. cities – Boston and Chicago – have contracted with Chinese companies to build new subway cars, primarily constructed with imported steel, for their respective transportation systems.⁵⁴

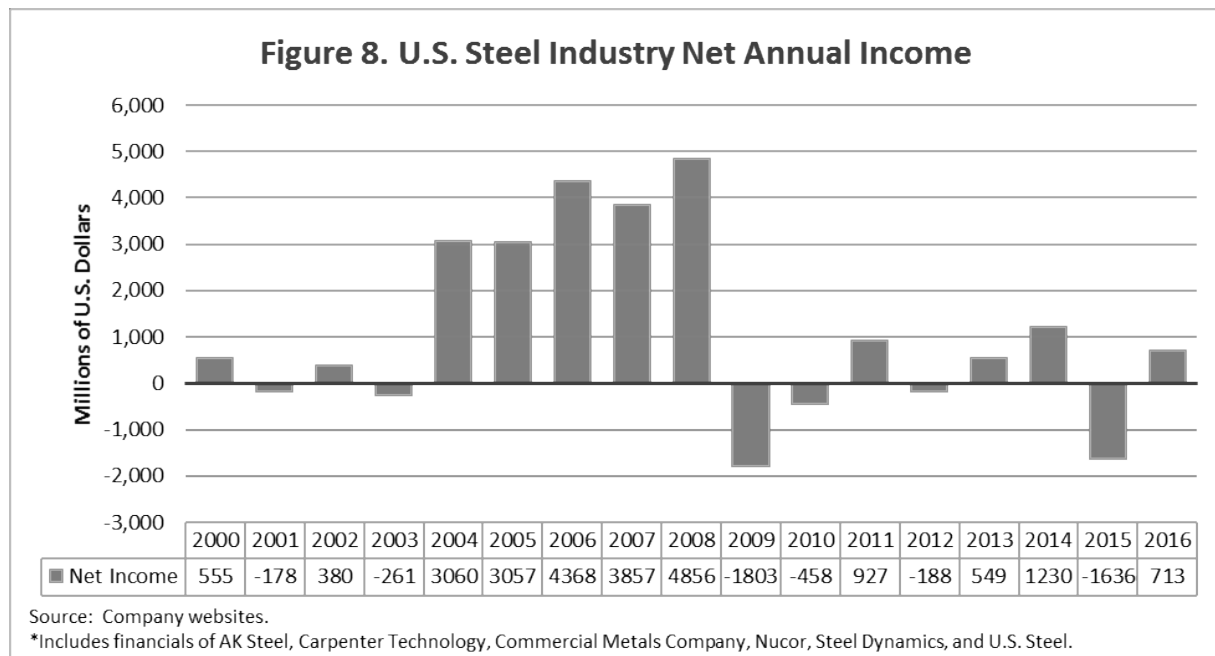
9. Financial Distress

Rising levels of imports of steel continue to weaken the U.S. steel industry's financial health. Years of running on low-profit margins or at a loss have weakened an industry that

⁵³ 53 New York Times, "Bridge Comes to San Francisco With a Made-in-China Label," June 25, 2011, <http://www.nytimes.com/2011/06/26/business/global/26bridge.html>

⁵⁴ Reuters, "China's CRRC lands \$1.3 billion China rail car project," March 10, 2016, <http://www.reuters.com/article/us-crrc-usa-idUSKCN0WC171>

continues to face an ever-increasing wave of steel imports. The U.S. industry, as a whole, has operated on average with negative net income from 2009- 2016. Net income for U.S.-owned steel companies has averaged only \$162 million annually since 2010, challenging the financial viability of this vital industry (*see* Figure 8).



The Stern School of Business at New York University calculates that U.S. steel industry participants in the last five years experienced negative net income of 17.8 percent. Compounded growth in revenue for the past five years in the steel industry has been a negative 7 percent.⁵⁵ The loss of revenue has caused U.S. steel manufacturers, both large and small, to defer or eliminate production facility capital investments and funding for research and development. Even though there was a slight uptick in net income for the first quarter in 2017 over the fourth quarter of 2016 margins remain poor compared to historic levels.

Not only have earnings before interest, taxes, depreciation, and amortization (EBITDA)

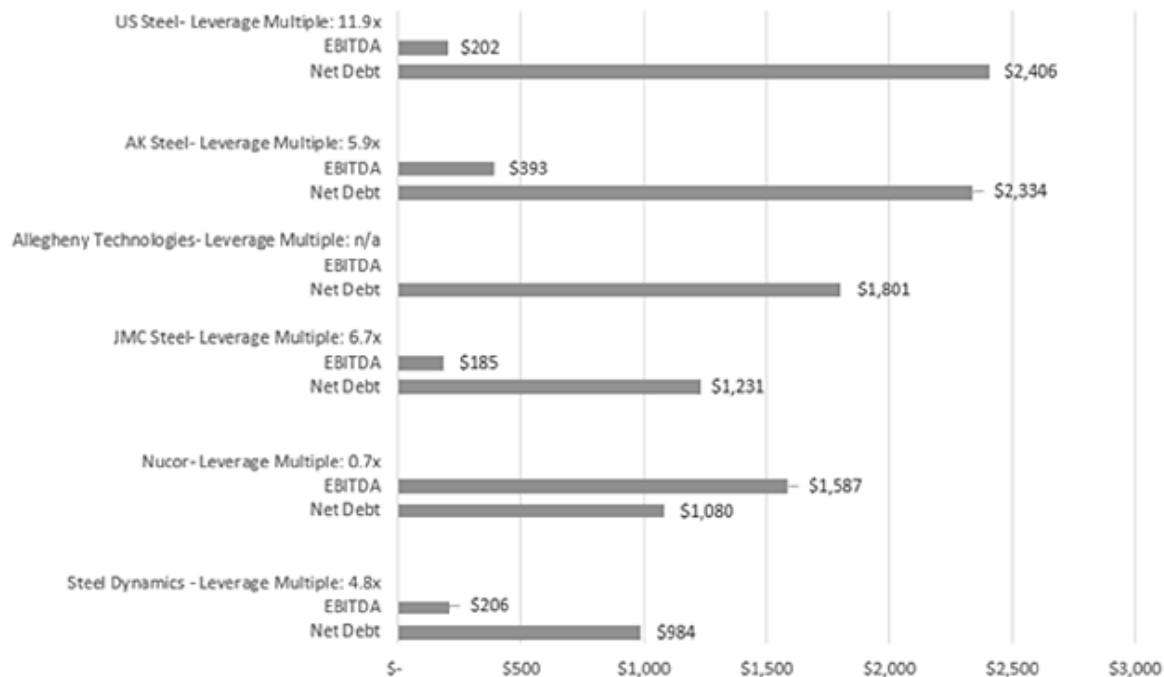
⁵⁵ “Historical (Compounded Annual) Growth Rates by Sector,” Aswath Damodaran, New York University Stern School of Business, January 2017. (see http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/histg.html)

been shallow for steel producers in the United States, many of them are burdened with high levels of debt, as much as 11.9 times of earnings for one major producer (*see* Figure 9).⁵⁶ While some companies are starting to pay down debt, others have not been able to do so primarily because of slack demand for domestically produced steel in the face of competition from imported products. Absent increases in steel production volume and pricing, one leading law firm specializing in insolvency, White & Case, observes that some steelmakers in the United States may soon have to renegotiate loan agreements to extend maturities; those that are not able to may have to consider Chapter 11 bankruptcy.⁵⁷

⁵⁶ Nucor operates mini-mills that use electric arc furnaces to produce high demand steel products primarily with recycled steel scrap. From a financial perspective, this business model allows Nucor to be highly price competitive, but the company produces a narrower range of flat steel products than integrated steel mills. The mini-mills can weather bad economic times because they have lower energy costs and can regulate production more easily. Basic oxygen furnace plants have higher fixed operating costs because they directly convert iron ore and other raw materials along with scrap into steel using more energy-intensive processes.

⁵⁷ “Losing Strength. U.S. Steel Industry Analysis,” Scott Griesman, White & Case, April 16, 2016 (*see* <https://www.whitecase.com/publications/article/losing-strength-us-steel-industry-analysis>).

Figure 9. U.S. Steel Industry Leverage Analysis (FY 2015)



Source: Debtwire, Bloomberg, NYSE, White & Case LLP

*EBITDA unavailable; debt is estimated

Note: Nucor has only electric arc furnaces (EAF). EAFs can be quickly stopped (or used for fewer shifts) and then restarted more easily than blast furnaces, where the furnace must be kept hot. This attribute makes Nucor slightly more flexible to adapt their production to demand and likely more profitable than large BOF producers. Nucor's key end-markets include nonresidential construction and energy.

JMC Steel is now part of Zekelman Industries

No capital intensive industry can survive with such poor margins over the longer term. The extensive leverage in the industry shown in Figure 9 adds to the likelihood of further closures if the present high level of imports continues to force U.S. steel mills to operate well below profitable capacity utilization rates.

10. Capital Expenditures

The ability of U.S. manufacturers of iron and steel products to fund capital expenditures for new production plants as well as facility modernization and advanced manufacturing equipment has been limited by falling revenue and reduced profits. As shown in Figure 10, annual capital expenditures for companies making iron and steel ingot, bars, rods, plate and other semi-finished products wavered from \$5.7 billion to \$5.1 billion for 2010-2012, before

ramping to \$7.1 billion in 2013.

Figure 10. Annual Capital Expenditures							
	Iron, Steel, and Ferroalloys Steel NAICS Codes 3311 and 3312 Combined	Millions of Current Dollars					
	Annual Capital Expenditures Survey	2010	2011	2012	2013	2014	2015
A.	Structures [New & Used Structures Combined]	1,026	1,322	1,564	1,157	724	580
B.	Equipment [New & Used Equipment Combined]	4,634	4,572	3,592	5,954	3,139	2,531
C.	Total Capital Expenditures	5,661	5,894	5,157	7,111	3,863	3,110
D.	(Unweighted) Payroll of Reporters / Total Payroll of Firms Classified in Industry group	86%	84%	80%	61%	86%	84%
Source: U.S. Census Bureau, Annual Capital Expenditures Survey, www.census.gov/programs-surveys/aces.html							

Confronted with receding orders for products and declines in income in 2013, iron and steel companies operating production facilities in the United States started curtailing capital investments. Total capital spending dropped to \$3.87 billion in 2014 and slid further to \$3.11 billion in 2015 – 32 percent below 2010 levels of \$5.66 billion.

The decline in capital expenditures reflected similar drops in net sales, which plummeted from \$129.6 billion in 2014 to \$102 billion in 2015. Income after taxes for U.S. iron and steel manufacturers fell from \$2.48 billion in the same two-year period to a massive loss of \$3.5 billion in 2015.

C. Displacement of Domestic Steel by Excessive Quantities of Imports has the Serious Effect of Weakening Our Internal Economy

1. Domestic Steel Production Capacity is Stagnant and Concentrated

According to the OECD, U.S. steel production capacity has remained stagnant at an average of approximately 114.3 million metric tons for more than a decade from 2006-2016 (see Figure 11). For 2016, the rated maximum capacity was 113 million metric tons for existing

basic oxygen furnace and electric arc furnace facilities.



[TEXT REDACTED]⁵⁸

The present situation with respect to basic oxygen furnace production is significantly worse than the situation assessed by the Department in the 2001 Report. As shown in Figure 13 below, the number of basic oxygen furnace facilities and units has declined precipitously since 1995. In 2000, there were 105 companies that produced raw steel at 144 locations,⁵⁹ while today there are only 38 companies producing steel at 93 locations, a 64 percent and 36 percent reduction, respectively.

Most importantly, in 2000 thirteen companies “operated integrated steel mills, with an average of 35 blast furnaces in continuous operation during the year”⁶⁰ while today there are only three companies operating 13 basic oxygen furnaces. These are 77 percent and 60 percent reductions, respectively. As a result, today only 26 percent of domestic steel is produced from raw

⁵⁸ [TEXT REDACTED]

⁵⁹ 2001 Report at 21.

⁶⁰ Id.

materials in the United States, as compared to 53 percent in 2000.

As noted earlier, since 2000 there has been over a 25 percent reduction in the number of basic oxygen furnaces operating in the United States, and 33 percent of the remaining basic oxygen furnaces are currently idled. In the Secretary's view, a further reduction in basic oxygen furnace capacity, which is especially important to the ability of domestic industry to meet national security needs, is inevitable if the present imports continue or increase.

[TEXT REDACTED] This would be a serious "weakening of our internal economy" and place the United States in a position where it is unable to be certain it could meet demands for national defense and critical industries in a national emergency.⁶¹

⁶¹ See *infra*, sections C4 and C5, for a further discussion of the inability to meet surge requirements in an emergency.

Figure 13. Basic Oxygen and Electric Arc Facilities and Units Located in the United States, 1975 - 2016				
Year	Basic Oxygen Furnace Facilities	Basic Oxygen Furnace Units	Electric Arc Furnace Facilities	Electric Arc Furnace Units
1975	38	90	--	--
1980	33	78	--	--
1985	27	66	--	--
1990	24	61	127	246
1995	22*	56*	116	218
2000	19*	50*	122	174
2005	17	46	115*	169*
2010	16	44	108	164
2015	13	31	98	154
2016	13	31	98	154
Source: U.S. Department of Commerce/BIS, American Iron and Steel Institute, Association for Iron & Steel Technology, Steel Manufacturers Association, August 2017. *Estimated.				
Basic Oxygen Furnace: Basic Oxygen Furnaces (BOF) are the dominant steelmaking technology globally, accounting for 74% of the world's total output of crude steel in 2016. BOF share of production in the U.S. was 33% in 2016 and has been slowly declining, due primarily to the advent of the "Greenfield" electric arc furnace (EAF) flat-rolled mills. The primary raw materials for the BOF are liquid hot metal (iron) from the blast furnace and steel scrap. [1] These are charged into the BOF vessel. Oxygen (>99.5% pure) is "blown" into the BOF at supersonic velocities. It oxidizes the carbon and silicon contained in the hot metal, liberating great quantities of heat, which melts the scrap. Source: Steel.org.				
Electric Arc Furnace: The Electric Arc Furnace (EAF) operates as a batch melting process, producing batches of molten steel known "heats". The EAF process uses steel scrap and iron units, melting them using electricity to make new steel. EAF output accounted for 66% of U.S. steel production in 2016. Source: Steel.org.				
[1] The Blast Furnace chemically reduces and physically converts iron oxides into liquid iron called "hot metal". The blast furnace is a huge steel stack lined with refractory brick, where iron ore, coke, and limestone are dumped into the top, and preheated air is blown into the bottom. The raw materials require six to eight hours to descend to the bottom of the furnace, where they become the final product of liquid slag and liquid iron. Source: Steel.org.				

In contrast to the situation in the United States, the leading global producers of steel (Brazil, South Korea, Japan, Russia, Germany, and especially China) primarily rely on basic oxygen furnace capacity rather than electric arc furnace capacity (*see* Figure 14). Each of these economic competitors to the United States possess critical research, development and production capabilities that the United States is in danger of losing if imports continue to force U.S. steel producers to operate at uneconomic capacity utilization levels.

A further reduction in domestic basic oxygen furnace capacity would put the United States at serious risk of becoming dependent on foreign steel to support its critical industries and defense needs. Allowing this decline to continue represents a "weakening of our internal

economy that may impair national security” which the Congress has directed the Secretary to advise the President of under the Section 232. *See* 19 U.S.C. 1862(d).

Figure 14. The Top 20 Countries Exporting to the U.S. – BOF vs. EAF Capacity					
Rank	Top Import Sources in 2016 in Tonnage Terms	2015 BOF Share	2015 EAF Share	2015 Other Share	Approx. Country's Average Capacity Utilization in 2016 (OECD)
	World	74.20%	25.20%	0.50%	67%
1	Canada	53.80%	46.20%		62%
2	Brazil	78.20%	20.20%		57%
3	South Korea	69.60%	30.40%		80%
4	Mexico	29.70%	70.30%		75%
5	Turkey	35.00%	65.00%		65%
6	Japan	77.10%	22.90%		80%
7	Russia	66.30%	30.50%	3.10%	76%
8	Germany	70.40%	29.60%		72% (EU 28)
9	Taiwan	62.30%	37.70%		75%
10	Vietnam	25.00%	59.90%	15.20%	32%
11	China	93.90%	6.10%		69%
12	Netherlands	98.60%	1.50%		72% (EU 28)
13	Italy	21.30%	78.20%		72% (EU 28)
14	United Kingdom	83.00%	17.00%		72% (EU 28)
15	France	65.60%	34.40%		72% (EU 28)
16	India	42.90%	57.10%		75%
17	Australia	77.60%	22.40%		63%
18	Spain	31.70%	68.30%		72% (EU 28)
19	Sweden	66.10%	33.90%		72% (EU 28)
20	South Africa	56.50%	43.50%		58.5%
Source: World Steel- Production Share Figures for 2015, US Census Bureau (Accessed Via HIS) – Import Growth Rates, OECD 2017 Q2 Market Assessment – Approximate Capacity Utilization					

This is not a hypothetical situation. The Department of Defense already finds itself without domestic suppliers for some particular types of steel used in defense products, including tire rod steel used in military vehicles and trucks.⁶² While the United States has many allies that produce steel, relying on foreign owned facilities located outside the United States introduces significant risk and potential delay for the development of new steel technologies and production of needed steel products, particularly in times of emergency. The Secretary notes that the

⁶² Letter from Defense Logistics Agency, Columbus, OH to BIS/OTE, August 1, 2017.

authority for the Department of Defense to place its order ahead of commercial orders on a mandatory basis does not extend to foreign-owned facilities outside the United States.⁶³

In the case of critical infrastructure, the United States is down to only one remaining producer of electrical steel in the United States (AK Steel – which is highly leveraged). Electrical steel is necessary for power distribution transformers for all types of energy – including solar, nuclear, wind, coal, and natural gas – across the country. If domestic electrical steel production, as well as transformer and generator production, is not maintained in the U.S., the U.S. will become entirely dependent on foreign producers to supply these critical materials and products.⁶⁴ Without an assured domestic supply of these products, the United States cannot be certain that it can effectively respond to large power disruptions affecting civilian populations, critical infrastructure, and U.S. defense industrial production capabilities in a timely manner.

2. Production is Well Below Demand

Demand for steel products in the United States (*see* Figure 15), increased from 100.1 million metric tons in 2011 to 117.5 million metric tons in 2014, then declined to 99.8 million metric tons in 2016. Demand in 2017 is projected to rebound to 107.7 million metric tons. During the 2011 to 2016 period, U.S. production of steel products dropped from 86.4 million metric tons in 2011 to 78.6 million metric tons in 2016, with a four percent increase expected in 2017.

For the six-year period, U.S. domestic steel production supplied only 70 percent of the average demand, even though available U.S. domestic steel production capacity during that

⁶³ See Defense Priorities and Allocations System Program (DPAS), www.dema.mil/DPAS

⁶⁴ United States Congress, Congressional Steel Caucus. Statement of Roger Newport, CEO, AK Steel Corporation (on behalf of the American Iron and Steel Institute). March 29, 2017.

period could have, on average, supplied up to 100 percent of demand (U.S. steel producers would be running at 92 percent capacity utilization for this period) with approximately 13 million metric tons of additional capacity remaining.

Figure 15. U.S. Steel Market Snapshot (millions of metric tons)								
	2011	2012	2013	2014	2015	2016	2017 YTD	2017 Annualized
Total Demand for Steel in U.S. (Production + Imports - Exports)	100.1	106.6	104.6	117.5	104.9	99.8	80.7	<i>107.3</i>
U.S. Annual Capacity	116.5	118.0	113.5	113.5	111.3	113.3	---	---
U.S. Annual Production (Liquid)	86.4	88.7	86.9	88.2	78.8	78.6	61.5	<i>81.9</i>
Sources: United States Department of Commerce, Bureau of the Census. American Iron and Steel Institute. Calculations based on industry and trade data.								

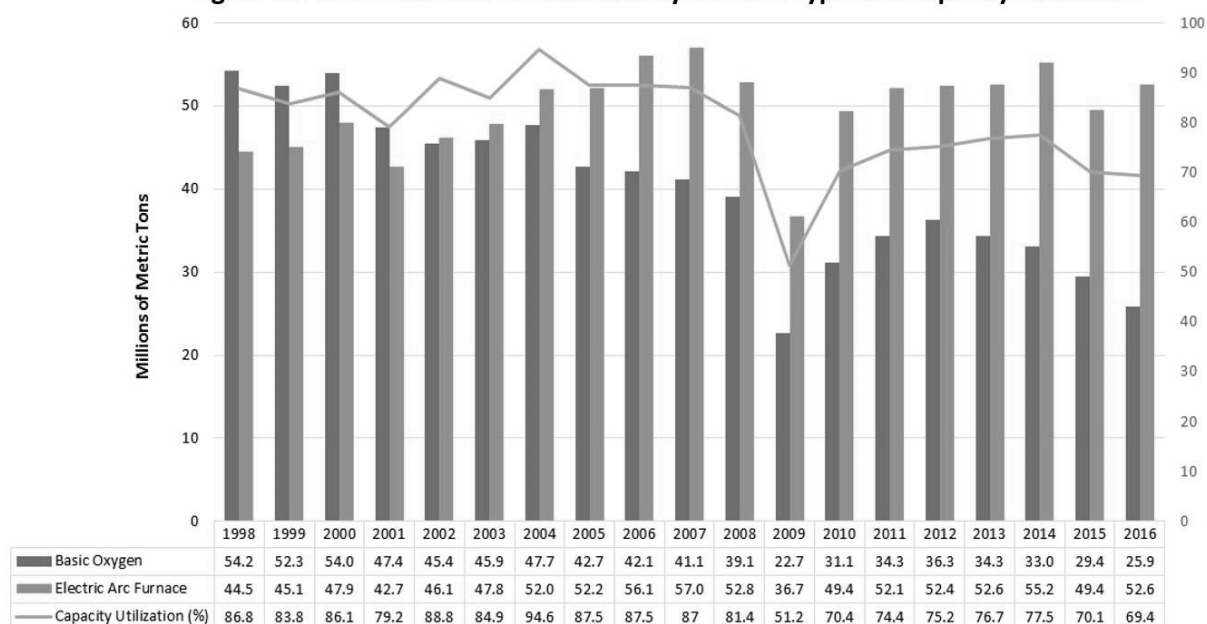
3. Utilization Rates are Well Below Economically Viable Levels

Overall, steel mill production capacity utilization has declined from 87 percent in 1998, to 81.4 percent in 2008, to 69.4 percent in 2016 (*see* Figure 16). For the most recent six-year period (2011-2016), the average utilization rate was 74 percent.

Industry analysts note that utilization of 80 percent or more is typically necessary for sustained profitability, among other factors.⁶⁵ For most capital and energy-intensive U.S. steel producers, capacity levels of 80 percent or higher are required to maintain facilities, carry out periodic modernization, service company debt, and fund research and development.

⁶⁵ Market Realist, “Why steel investors are mindful of capacity utilization rates,” October 2, 2014, <http://marketrealist.com/2014/10/investors-mindful-capacity-utilization-rate/>. See also <http://marketrealist.com/2015/09/upstream-exposure-impact-steel-companies>.

Figure 16. U.S. Crude Steel Production by Furnace Type and Capacity Utilization



Source: American Iron and Steel Institute

When steel factory utilization falls, costs per unit of steel product rises, reducing profit margins and product pricing flexibility. Higher capacity utilization usually results in lower per-unit product costs and higher overall profit.⁶⁶ Over 80 percent is a healthy capacity utilization rate and a rate at which most companies would be profitable.

The U.S. steel industry uses 80 percent as a benchmark for minimum operational efficiency. Moreover, the steel industry is capable of reaching and sustaining 80 percent capacity utilization or higher. During the 2002-2008 period, U.S. steel companies operated at an average 87.4 percent level.⁶⁷

These industry assessments are consistent with a 1983 report on “Critical Materials Requirements in the U.S. Steel Industry” in which the Department explained that “[c]apability

⁶⁶ Houston Chronical, “Capacity Utilization and Effects on Product and Profit,”

<http://smallbusiness.chron.com/capacity-utilization-effects-product-profit-67046/html>; steel industry sources.

⁶⁷ <http://marketrealist.com/2015/09/upstream-exposure-impact-steel-companies.html> (“It’s important to note how changes in capacity utilization rates impact a company’s earnings. For example, we see a big jump in earnings when utilization rates improve from 80 percent to 85 percent. However, incremental benefits are lower when utilization rates increase from 90 percent to 95 percent.”).

utilization or capacity use, which in effect describes the efficiency of an industry's use of capital, is a prime determinant of profitability. Domestic steel producers were operating at about 55 percent capability for the first half of 1982. The comparable rate for the first half of 1981 was 85 percent. This current rate is probably well below a breakeven point for most producers, whereas 1981 was profitable for nearly all producers.”⁶⁸

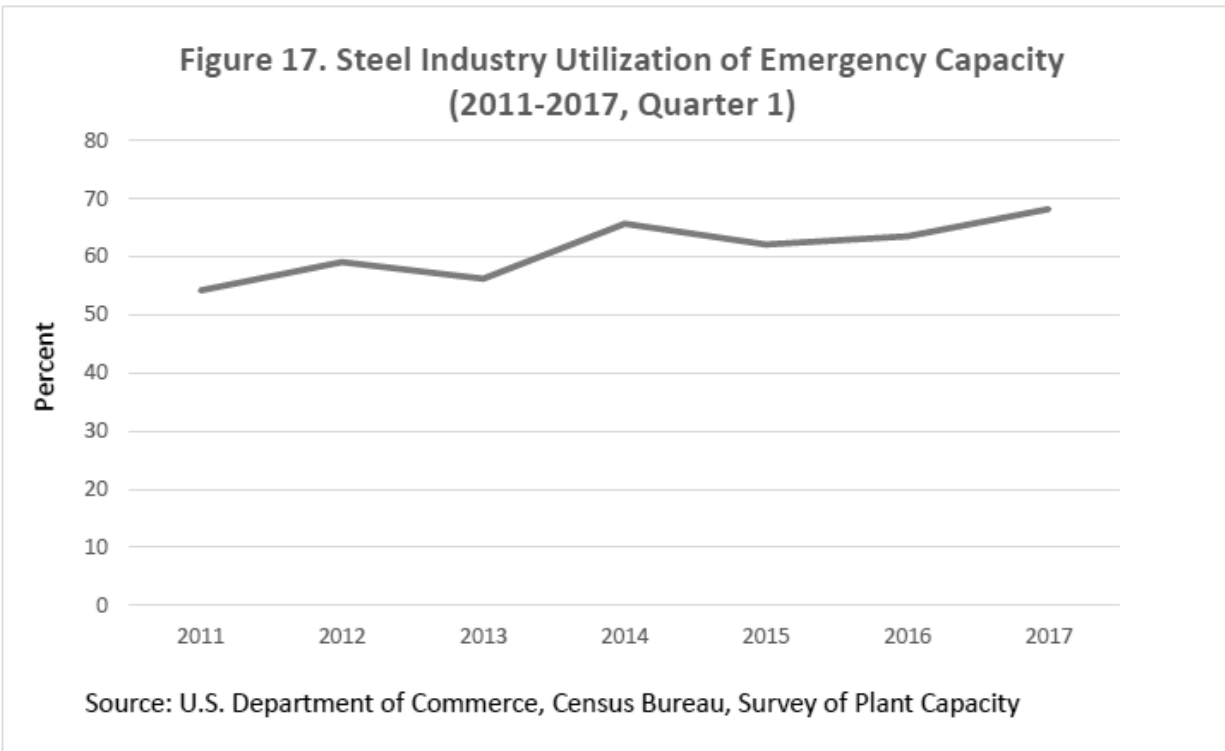
4. Declining Steel Production Facilities Limits Capacity Available for a National Emergency

The number of steel production facilities located in the U.S. continues to decline. As shown earlier in Figure 13, from 1975 to 2016 the number of basic oxygen furnace facilities decreased from 38 to 13. Similarly, from 1990 to 2016, the number of electric arc furnace facilities decreased from 127 to 98.

Due to this decline in facilities, domestic steel producers have a shrinking ability to meet national security production requirements in a national emergency. The U.S. Department of Commerce, Census Bureau regularly surveys plant capacity, and has found that steel producers are quickly shedding production capacity that could be used in a national emergency. The Census Bureau defines national emergency production as the “greatest level of production an establishment can expect to sustain for one year or more under national emergency conditions.”⁶⁹ From 2011 to 2017, steel producers increased the utilization of the surge capacity they would have during a national emergency from 54.2 percent to 68.2 percent (*see* Figure 17). As steel producers use more of this emergency capacity, there is an increasingly limited ability to ramp up steel production to meet national security needs during a national emergency.

⁶⁸ Department of Commerce, “Critical Materials Requirements in the U.S. Steel Industry,” March 1983, at 16-17.

⁶⁹ U.S. Dept. of Commerce, Census Bureau, Survey of Plant Capacity. 2011-2017.



The ability to increase steel production during a national emergency continues to diminish as the number of steel production facilities continues to decline. If the U.S. requires a similar increase in steel production as it did during previous national emergencies, domestic steel production capacity may be insufficient to satisfy national security needs. If a national emergency were to occur at present utilization levels, domestic steel producers would be able to increase production by 146 percent.

For comparison, from 1938 through 1946 the U.S. increased the production of pig iron and ferro-alloys by 217 percent and increased the production of steel ingots and castings by 210 percent to meet the demands of fighting a global war.⁷⁰ From 1960 through 1973, during the Vietnam era, the U.S. increased steel production by 152 percent.⁷¹ Should the U.S. once again experience a conflict on the scale of the Vietnam War, steel production capacity may be slightly

⁷⁰ U.S. Dept. of Commerce, Census Bureau, Survey of Plant Capacity. 2011-2017.

⁷¹ U.S. Dept. of Commerce, Census Bureau. Statistical Abstract of the United States, 1978. Page 830.

insufficient to meet national security needs. But if the U.S. were to experience a conflict requiring the production increase seen during the Second World War, the existing domestic steel production capacity would be unable to meet national security requirements.

Increasing steel production capacity once a large-scale national emergency has arisen would take a significant amount of time. According to the American Iron and Steel Institute, the replacement of a basic oxygen furnace facility takes more than a year to complete. Therefore, the lack of spare domestic steel production capacity and the possible inability to sufficiently increase production during a national emergency may impair the national security of the United States.

D. Global Excess Steel Capacity is a Circumstance that Contributes to the Weakening of the Domestic Economy

1. Free markets globally are adversely affected by substantial chronic global excess steel production led by China

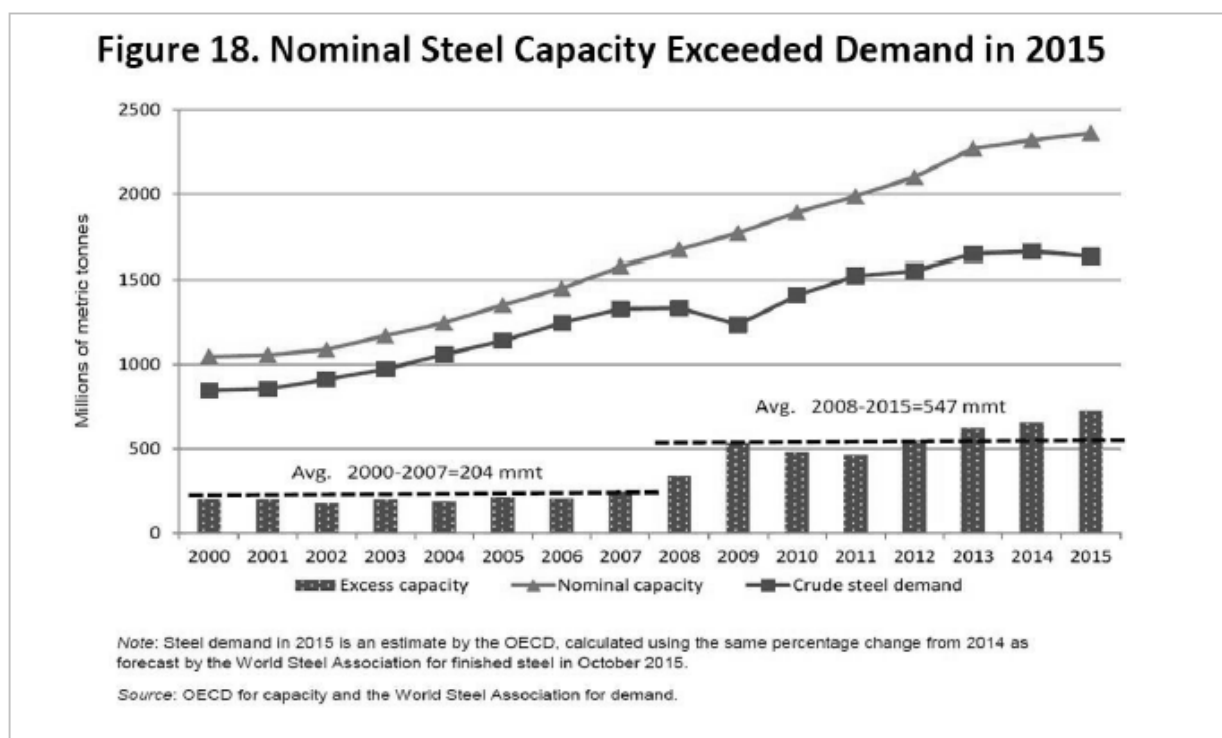
Numerous studies, reports, and investigations have documented the global excess steel capacity, with China having the largest installed capability (*see* Figure 18).^{72,73,74} OECD analyses show that the world's nominal crude steelmaking capacity reached about 2.4 billion metric tons in 2016, an increase of 127 percent compared to the 2000 level. Most of the capacity expansion was planned for construction and manufacturing activities, and to help build the infrastructure necessary for economic development – most in non-OECD countries. Furthermore, the OECD reports that while steel capacity increased at a steady rate, world steel demand contracted sharply in the aftermath of the global economic and financial crisis of 2008.

⁷² Brun, L. (2016). Overcapacity in Steel, China's Role in a Global Problem. Washington, DC. Alliance for American Manufacturing. http://aamweb.s3.amazonaws.com/uploads/resources/OvercapacityReport2016_R3.pdf

⁷³ Price, A., Weld, C., El-Sabaawi, L., & Teslik, A. (2016). Capacity Runs Riot. Washington, DC. Wiley Rein LLP.

⁷⁴ OECD Reports. (2016). <http://www.oecd.org/industry/ind/82nd-session-of-the-steel-committee.htm>

Global demand for steel recovered slowly in the years following 2008. However, since 2013, global steel demand has flattened thereby widening the capacity/demand gap. By 2015, the gap reached over 700 million metric tons.

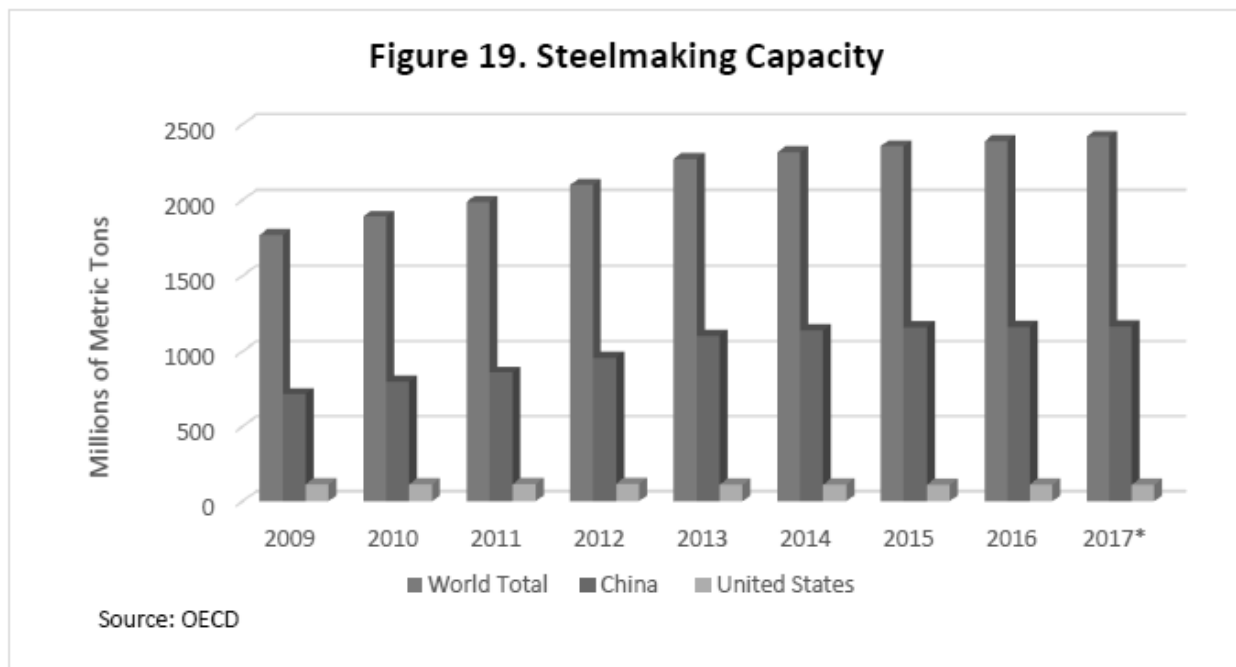


The vast size of the capacity/demand gap means that steel demand alone cannot increase enough to balance the global overcapacity problem, which is particularly prevalent in China. Chinese excess capacity, estimated at more than 300 million metric tons, dwarfs total U.S. production capacity (*see* Figure 19).⁷⁵

The effect of global overcapacity and excess steel production on U.S. steel prices and import levels is discussed in greater detail in Appendix L. While U.S. steel production capacity has remained flat since 2001, other steel producing nations have increased their production

⁷⁵ OECD, “High Level Meeting. Excess Capacity and Structural Adjustment in the Steel Sector,” April 2016, http://www.oecd.org/sti/ind/Background%20document%20No%202_FINAL_Meeting.pdf

capacity, with China alone able to produce as much steel as the rest of the world combined.



Several countries (India, Iran, and Indonesia) in addition to China continue to add production capacity despite slack global demand. According to the OECD Steel Committee Chair’s statement from March 2017, “New data suggest that nearly 40 million metric tons of gross capacity additions are currently underway and could come on stream during the three-year period of 2017-19, while an additional 53.6 million metric tons of capacity additions are in the planning stages for possible start- up during the same time period.”⁷⁶ This additional global steel capacity coming online represents over 80 percent of existing U.S. steelmaking production capacity, demonstrating that the import challenge to U.S. industry is continuing to grow.

2. Increasing global excess steel capacity will further weaken the internal economy as U.S. steel producers will face increasing import competition

These additions to worldwide steelmaking capacity will only exacerbate the situation

⁷⁶ OECD, “82nd Session of the OECD Steel Committee – Chair’s Statement,” March 2017, <http://www.oecd.org/sti/ind/82-oecd-steel-chair-statement.htm>

because they will further lower global operating utilization rates, including in the United States. Growth in foreign government-subsidized steel production is progressively weakening the financial health of the U.S. steel industry as other steel producing countries export more steel to the U.S. to in part to offset the loss of regional markets to Chinese steel (*see* Appendix L).

The U.S. share of global production continues to steadily decline. In the year 2000, when President Clinton signed into a law a statute granting China permanent normal trade relations status,⁷⁷ the U.S. share of global steel production stood at 12 percent.⁷⁸ Since that point in time, the U.S. share of global steel production continued an inexorable decline as other countries, and especially China, began to increase production. The U.S. share of global steel production fell to 8 percent in 2005,⁷⁹ 5 percent in 2009,⁸⁰ and 4.8 percent in 2015.⁸¹ In contrast, China commanded a 49.7 percent share of global steel production in 2015.⁸²

If even half of the planned additional global capacity identified by the OECD Steel Committee is built, and the related new production finds its way into the U.S., it will drive the operating rate of U.S. steel mills to less than 50 percent of capacity. This will cause a substantial and unsustainable negative cash situation that will ultimately result in multiple corporate bankruptcies due to heavy debt loads and related declines in steel production capacity and employment levels.

⁷⁷ Public Law 106-286. An act to authorize extension of nondiscriminatory treatment (normal trade relations treatment) to the People's Republic of China, and to establish a framework for relations between the United States and the People's Republic of China. October 10, 2000. <https://www.gpo.gov/fdsys/pkg/PLAW-106publ286>

⁷⁸ U.S. Dept. of Commerce, Census Bureau. Statistical Abstract of the United States, 2012. Page 574.

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ Steel Statistical Yearbook, 2016. World Steel Association. <https://www.worldsteel.org/en/dam/jcr.37ad1117-fefc-4df3-b84f-6295478ae460/Steel+Statistical+Yearbook+2016.pdf>

⁸² Steel Statistical Yearbook, 2017. World Steel Association. <https://www.worldsteel.org/en/dam/jcr.3e275c73-6f11-4e7f-a5d8-23d9bc5c508f/Steel+Statistical+Yearbook+2017.pdf>

VI. CONCLUSION

The Secretary has determined that the displacement of domestic steel by excessive imports and the consequent adverse impact of those quantities of steel imports on the economic welfare of the domestic steel industry, along with the circumstance of global excess capacity in steel, are “weakening our internal economy” and therefore “threaten to impair” the national security as defined in Section 232.

The continued rising levels of imports of foreign steel threaten to impair the national security by placing the U.S. steel industry at substantial risk of displacing the basic oxygen furnace and other steelmaking capacity, and the related supply chain needed to produce steel for critical infrastructure and national defense.

In considering “the impact of foreign competition on the economic welfare of individual domestic [steel] industries” and other factors Congress expressly outlined in Section 232, the Secretary has determined that the continued decline and concentration in steel production capacity is “weakening of our internal economy and may impair national security.” *See* 19 U.S.C. 1862(d).

Global excess steel capacity is a circumstance that contributes to the “weakening of our internal economy” that “threaten[s] to impair” the national security as defined in Section 232. Free markets globally are adversely affected by substantial chronic global excess steel production led by China. While U.S. steel production capacity has remained flat since 2001, other steel producing nations have increased their production capacity, with China alone able to produce as much steel as the rest of the world combined. This overhang of excess capacity means that U.S. steel producers, for the foreseeable future, will face increasing competition from imported steel as other countries export more steel to the United States to bolster their own

economic objectives.

Since defense and critical infrastructure requirements alone are not sufficient to support a robust steel industry, U.S. steel producers must be financially viable and competitive in the commercial market to be available to produce the needed steel output in a timely and cost efficient manner. In fact, it is the ability to quickly shift production capacity used for commercial products to defense and critical infrastructure production that provides the United States a surge capability that is vital to national security, especially in an unexpected or extended conflict or national emergency. It is that capability which is now at serious risk; as imports continue to take business away from domestic producers, these producers are in danger of falling below minimum viable scale and are at risk of having to exit the market and substantially close down production capacity, often permanently.

Steel producers in the United States are facing widespread harm from mounting imports. Growing global steel capacity, flat or declining world demand, the openness of the U.S. steel market, and the price differential between U.S. market prices and global market prices (often caused by foreign government steel intervention) ensures that the U.S. will remain an attractive market for foreign steel absent quotas or tariffs. Excessive imports of steel, now consistently above 30 percent of domestic demand, have displaced domestic steel production, the related skilled workforce, and threaten the ability of this critical industry to maintain economic viability.

A U.S. steel industry that is not financially viable to invest in the latest technologies, facilities, and long-term research and development, nor retain skilled workers while attracting a next-generation workforce, will be unable to meet the current and projected needs of the U.S. military and critical infrastructure sectors. Moreover, the market environment for U.S. steel producers has deteriorated dramatically since the 2001 Report, when the Department concluded

that imports of iron ore and semi-finished steel do not “fundamentally threaten” the ability of U.S. industry to meet national security needs.⁸³

The Department’s investigation indicates that the domestic steel industry has declined to a point where further closures and consolidation of basic oxygen furnace facilities represents a “weakening of our internal economy” as defined in Section 232. The more than 50 percent reduction in the number of basic oxygen furnace facilities – either through closures or idling of facilities due to import competition – increases the chance of further closures that place the United States at serious risk of being unable to increase production to the levels needed in past national emergencies. The displacement of domestic product by excessive imports is having the serious effect of causing the domestic industry to operate at unsustainable levels, reducing employment, diminishing research and development, inhibiting capital expenditures, and causing a loss of vital skills and know-how. The present capacity operating rates for those remaining plants continue to be below those needed for financial sustainability. These conditions have been further exacerbated by the 22 percent surge in imports thus far in 2017 compared with 2016. Imports are now consistently above 30 percent of U.S. domestic demand.

It is evident that the U.S. steel industry is being substantially impacted by the current levels of imported steel. The displacement of domestic steel by imports has the serious effect of placing the United States at risk of being unable meet national security requirements. The Secretary has determined that the “displacement of domestic [steel] products by excessive imports” of steel is having the “serious effect” of causing the “weakening of our internal economy.” *See* 19 U.S.C. 1862(d). Therefore, the Secretary recommends that the President take

⁸³ 2001 Report at 28 – 37. As noted, *supra* note 16, the 2001 Report added the qualifier “fundamentally” which is not found in the statutory text. The Secretary in this report uses the statutory standard of “threatens to impair” without such qualification.

corrective action pursuant to the authority granted by Section 232. *See* 19 U.S.C. 1862(c).

VII. RECOMMENDATION

Prior significant actions to address steel imports (quotas and/or tariffs) were taken under various statutory authorities by President George W. Bush, President William J. Clinton (three times), President George H. W. Bush, President Ronald W. Reagan (three times), President James E. Carter (twice), and President Richard M. Nixon, all at lower levels of import penetration than the present level, which is above 30 percent.

Due to the threat of steel imports to the national security, as defined in Section 232, the Secretary recommends that the President take immediate action by adjusting the level of imports through quotas or tariffs on steel imported into the United States, as well as direct additional actions to keep the U.S. steel industry financially viable and able to meet U.S. national security needs. The quota or tariff imposed should be sufficient, after accounting for any exclusions, to enable the U.S. steel producers to be able to operate at about an 80 percent or better of the industry's capacity utilization rate based on available capacity in 2017.

In 2016, U.S. steel production was 78.6 million metric tons and U.S. capacity was 113.3 million metric tons, which represents a 69.4 percent capacity utilization rate. If current import trends for 2017 continue, continued imports without any action are projected to be 36.0 million metric tons, an increase over 2016 of 6.0 million metric tons. Even with U.S. demand projected to increase to 107.3 from 99.8 million metric tons, increased imports mean U.S. capacity utilization is forecast to rise only to 72.3 percent, a non-financially viable and unsustainable level of operation.

By reducing import penetration rates to approximately 21 percent, U.S. industry would be able to operate at 80 percent of their capacity utilization. Achieving this level of capacity utilization

based on the projected 2017 import levels will require reducing imports from 36 million metric tons to about 23 million metric tons. If a reduction in imports can be combined with an increase in domestic steel demand, as can be reasonably expected rising economic growth rates combined with the increased military spending and infrastructure proposals that the Trump Administration has planned, then U.S. steel mills can be expected to reach a capacity utilization level of 80 percent or greater. This increase in U.S. capacity utilization will enable U.S. steel mills to increase operations significantly in the short-term and improve the financial viability of the industry over the long-term.

Recommendation to Ensure Sustainable Capacity Utilization and Financial Health

Impose a Quota or Tariff on all steel products covered in this investigation imported into the United States to remove the threatened impairment to national security. The Secretary recommends adjusting the level of imports through a quota or tariff on steel imported into the United States.

Alternative 1 – Global Quota or Tariff

1A. Global Quota

Impose quotas on all imported steel products at a specified percent of the 2017 import level, applied on a country and steel product basis.

According to the Global Trade Analysis Project (GTAP) Model, produced by Purdue University, a 63 percent quota would be expected to reduce steel imports by 37 percent (13.3 million metric tons) from 2017 levels. Based on imports from January to October, import levels for 2017 are projected to reach 36.0 million metric tons. The quotas, adjusted as necessary, would result in imports equaling about 22.7 million metric tons, which will enable an 80 percent capacity utilization rate at 2017 demand levels (including exports). Application of an annual quota will reduce the impact of the surge in steel imports that has occurred since the beginning of 2017.

1B. Global Tariff

Apply a tariff rate on all imported steel products, in addition to any antidumping or countervailing duty collections applicable to any imported steel product.

Similar to what is anticipated under a quota, according to the Global Trade Analysis Project (GTAP) Model, produced by Purdue University, a 24 percent tariff on all steel imports would be expected to reduce imports by 37 percent (i.e., a reduction of 13.3 million metric tons from 2017 levels of 36.0 million metric tons).⁸⁴ This tariff rate would thus result in imports equaling about 22.7 million metric tons, which will enable an 80 percent capacity utilization rate at 2017 demand levels (including exports).⁸⁵

Alternative 2 –Tariffs on a Subset of Countries

Apply a tariff rate on all imported steel products from Brazil, South Korea, Russia, Turkey, India, Vietnam, China, Thailand, South Africa, Egypt, Malaysia and Costa Rica, in addition to any antidumping or countervailing duty collections applicable to any steel products from those countries. All other countries would be limited to 100 percent of their 2017 import level.

According to the Global Trade Analysis Project (GTAP) Model, produced by Purdue University, a 53 percent tariff on all steel imports from this subset of countries would be expected to reduce imports by 13.3 million metric tons from 2017 import levels from the targeted countries. This action would enable an increase in domestic production to achieve an 80 percent capacity utilization rate at 2017 demand levels (including exports). The countries identified are projected to account for less than 4 percent of U.S. steel exports in 2017.

⁸⁴ Due to general equilibrium effects, the overall import level would need to decrease by more than the corresponding increase in domestic production to offset the negative effects of price or exchange rate changes on export demand.

⁸⁵ The elasticity factor is an estimate, not a certainty. A variation of 0.1 in the elasticity factor would change the tonnage reduction by about 375,000 tons. For example, imports would fall by an additional 375,000 tons under a demand elasticity of -1.7 instead of -1.6 and a 25 percent tariff.

Exemptions

In selecting an alternative, the President could determine that specific countries should be exempted from the proposed 63 percent quota or 24 percent tariff by granting those specific countries 100 percent of their prior imports in 2017, based on an overriding economic or security interest of the United States. The Secretary recommends that any such determination should be made at the outset and a corresponding adjustment be made to the final quota or tariff imposed on the remaining countries. This would ensure that overall imports of steel to the United States remain at or below the level needed to enable the domestic steel industry to operate as a whole at an 80 percent or greater capacity utilization rate. The limitation to 100 percent of each exempted country's 2017 imports is necessary to prevent exempted countries from producing additional steel for export to the United States or encouraging other countries to seek to trans-ship steel to the United States through the exempted countries.

It is possible to provide exemptions from either the quota or tariff and still meet the necessary objective of increasing U.S. steel capacity utilization to a financially viable target of 80 percent. However, to do so would require a reduction in the quota or increase in the tariff applied to the remaining countries to offset the effect of the exempted import tonnage.

Exclusions

The Secretary recommends an appeal process by which affected U.S. parties could seek an exclusion from the tariff or quota imposed. The Secretary would grant exclusions based on a demonstrated: (1) lack of sufficient U.S. production capacity of comparable products; or (2) specific national security based considerations. This appeal process would include a public comment period on each exclusion request, and in general, would be completed within 90 days of a completed application being filed with the Secretary.

An exclusion may be granted for a period to be determined by the Secretary and may be terminated if the conditions that gave rise to the exclusion change. The U.S. Department of Commerce will lead the appeal process in coordination with the Department of Defense and other agencies as appropriate. Should exclusions be granted the Secretary would consider at the time whether the quota or tariff for the remaining products needs to be adjusted to increase U.S. steel capacity utilization to a financially viable target of 80 percent.

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